1. QUICKWAYSM Digital Service

1.1 General

Rates and charges for services explained herein are contained in Part M, Section 3.

1.1.1 Definitions

Bit—The smallest unit of information in the binary system of notation.

Digital Service Center—The wire center to which local distribution channels, interoffice channels and interdigital service center channels are connected in the digital service center area where access to the service is provide.

Digital Service Center Area—A specific geographic area in the digital service center.

Serving Wire Center—The office from which a customer would be served for local exchange telephone service.

1.1.2 Availability

A. Quickway is no longer available. Service installed prior to August 12, 1990 is furnished to existing customers at present locations only in the same or lesser quantities.

1.1.3 Description

- A. Quickway is a service for the transmission of digital signals and provides for the simultaneous transmission (duplex operation) of these signals at synchronous speeds of 2.4, 4.8, 9.6, or 56 kilobits per second (kbps) within a Local Access and Transport Area (LATA).
- B. | Service Options
- 1. Two Station Service—This offering may consist of two local distribution channels furnished in the same digital service center, or two local distribution channels furnished in different wire centers within the digital service center area requiring an interoffice channel or two local distribution channels located in two different digital service center areas requiring an interdigital service center channel and interoffice channels if applicable.
- 2. **Multi-Station Service**—This offering consists of connections of three or more stations from a designated multi-station digital service center and provides the capability to connect multiple stations at a designated multi-station digital service center. All stations must operate at the same transmission speed.

1.1.4 Service Components

A. Local Distribution Channel—A two-point digital transmission path between the customer's premises and the serving wire center.

- 1. QUICKWAYSM Digital Service
- 1.1 General

1.1.4 Service Components

- B. Interoffice Channel—A two-point transmission path between a serving wire center and a designated digital service center where Quickway capability is available. The mileage for interoffice channels is based on the airline distance using V&H coordinates between the serving wire center and the digital service center.
- C. Interdigital Service Center Channel—A two-point transmission path between two different digital service centers. The mileage for interdigital service center channels is based on the airline distance using V&H coordinates between digital service centers.

1. QUICKWAYSM Digital Service

1.2 Responsibility of the Telephone Company

1.2.1 Cancellation

A. When an application for service is cancelled or changed in whole or in part by the applicant prior to completion of the construction and installation, the regulations in Part A, Section 1 apply.

1.2.2 Interruption of Service

- A. Credit allowances are applied as set forth herein, subject to the provisions in Part A, Section 1.
- B. A credit allowance will be made for the portion of the service which is affected, subject to the limitations herein, provided that the interruption is brought to the attention of the Telephone Company within ten days. For the purpose of determining the amount of the allowance, every month is considered to have 30 days.
- C. No credit is allowed for interruptions to service of less than 30 minutes. Interruptions of 30 minutes or over are credited to the customer at the proportionate monthly charge in half hour multiples for each half hour or major fraction thereof of interruption. No credit allowance will be made for the following interruptions.
- 1. Interruptions due to the negligence of the customer or authorized user.
- 2. Interruptions of service due to failure of facilities or equipment provided by the customer or authorized user.
- 3. Interruptions of service which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made shall begin on the seventh day after the customer receives the Telephone Company's notification of the need for such replacement and shall end on the day after the Telephone Company receives the customer's authorization for such replacement.

1.2.3 Suspension of Services

A. Quickway and its associated equipment is not subject to a temporary suspension of service arrangement.

1. QUICKWAYSM Digital Service

1.3 Regulations

1.3.1	Use of Service
A.	Quickway may be used for the transmission of data communications to or from the customer or authorized user and relating directly to the customer's or authorized user's business.
В.	Quickway may be used for the transmission of data communications relating directly to the business of a subsidiary corporation over which the customer exercises control.
C.	Unlawful Use—The service furnished under this tariff shall not be used by other than the customer or authorized user or for any purpose or in any manner directly or indirectly in violation of the law or in aid of any unlawful act or undertaking.

1.3.2 Minimum Period

- **A.** The minimum period for which service is furnished and for which charges are applicable is one month.
- 1. The charges for a fractional part of a month which follows and is consecutive with a full month will be a proportionate part of the monthly charge using the same ration that the actual number of days service is furnished bears to 30 days.

1.3.3 Special Construction

A. Where suitable facilities are not available for the provision of service as ordered by the customer or unusual expenditures are involved, special construction charges may apply as determined on a case by basis as specified in Part A, Section 2.

1.3.4 Application of Rates and Charges

- A. Monthly rates are offered under the Flexible Rate Pricing Plan as specified in Part A, Section 1.
- 1. Currently applicable rates are contained in the Telephone Company's Price List.
- B. In addition to the NRCs and monthly rates for service, premises work charges apply as appropriate.
- C. Multi-Station Arrangement—Such an arrangement is required for each station on a service arranged for multi-station operation.
- D. Move and Change Charges
- 1. Move—Premises work charges apply for the move of digital local channels.
- 2. Change—Charges apply as for a new installation for a change in digital local channels.

2. SUPERPATH® 1.544 Mbps Digital Service

2.1 General

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

2.1.1 Definitions

Bit—The smallest unit of information in the binary system of notation.

Channel Service Unit Functionality—Equipment which performs the function of proper termination of a circuit, regeneration of signals, recognition and correction of signal format errors, and remote loopback.

Confirmed Due Date—The date on which work activity is scheduled to be completed by the Telephone Company and for which the service is available for use by the customer. The confirmed due date is provided by the Telephone Company to the customer once the availability of Telephone Company facilities has been authorized.

DS1 to Digital Multiplexer—A service provided by the Telephone Company at central offices, designated as multiplexing hubs, that converts a 1.544 Mpbs channel to 24 channels for use with digital private line service.

DS1 to Voice Multiplexer—A service provided by the Telephone Company at central offices, designated as multiplexing hubs, that converts a 1.544 Mpbs channel to 24 channels for use with voice grade service.

Intermediate Hub—A wire center that provides multiplexing which can serve itself and one or more wire centers within the Local Access and Transport Area (LATA). In this intermediate hub (wire center) a 1.544 Mpbs channel can be multiplexed and the individual channels terminated at customer designated premises located within the local serving area of that wire center. Individual channels can be extended through any designated wire center(s) subtending the intermediate hub within the LATA to terminate at customer designated premises located within the local serving area of each wire center.

Interoffice Channel—A 1.544 Mbps path for digital transmission between central offices.

Intra Central Office Distribution Channel—A 1.544 Mbps path for digital transmission to connect a local distribution channel or interoffice channel to a central office based service.

Local Distribution Channel—A 1.544 Mbps path for digital transmission between the customer's premises and the serving central office.

Multiplexing—The act of combining a number of individual channels for transmission over a common transmission path.

Multiplexing Hub—A Telephone Company designated central office at which multiplexing functions are performed.

Terminus Hub—A wire center in which a 1.544 Mbps channel can be multiplexed to 24 channels. A terminus hub serves only customers in the wire center in which the multiplexing is performed.

2. SUPERPATH® 1.544 Mbps Digital Service

2.1 General

2.1.2Description Superpath is a 1.544 Mbps channel provided on a two point basis. Superpath is provided with a local distribution channel(s) and an interoffice channel, local distribution channels only, or, an interoffice channel between two Telephone Company designated central offices. Superpath is provided between the following locations. Customer designated premises A customer designated premises and a Telephone Company designated central office Telephone Company designated central offices. В. Superpath is provided only where facilities are available and is subject to the technical limitations of the digital equipment used by the Telephone Company as set forth in the PUB 62411 and TR-NPL-000054. Superpath consists of two point digital channels and equipment which provide for simultaneous two-way transmission of serial, bipolar, return to zero, digital signals at a transmission speed of 1.544 Mpbs. Superpath is designed to provide an average performance of at least 98.75% error-free seconds of transmission measured over a continuous 24 hour period. E. Superpath is furnished on a full-time basis, 24 hours a day, seven days a week. Central Office (CO) Multiplexing may be provided from suitably equipped multiplexing hubs. The customer is responsible for the assignment of individual channels within the multiplexer and for maintaining records of those assignments. Customer provided multiplexing equipment must conform with the electrical requirements for channel units specified in PUB 43801 and CB 119. The central office multiplexing capability is provided by a central office multiplexer at

2.1.3 Service Functions

with digital services.

Service functions are optional features or arrangements that are available for use with Superpath Digital service.

designated multiplexing hubs which converts a 1.544 Mpbs channel to 24 channels for use with voice grade services and/or analog data services or to 24 channels for use

- A. Central Office Multiplexing DS1 to Voice allows for up to 24 individual voice grade or analog data private lines on a channelized basis for use with a 1.544 Mbps circuit. This function is offered for the same customer at multiplexing hubs. The voice grade private lines provided are as follows.
- 1. Centrex tie lines and SOPs
- 2. Foreign exchange
- 3. Private Line Analog Data

SUPERPATH® 1.544 Mbps Digital Service General 2.

2.1

2.1.3	Service Functions
A.	(Continued)
4.	Private Line Voice (PLT)
5.	PBX Stations Off-Premises (SOPs)
6.	PBX tie lines
В.	Central Office Multiplexing DS1 to Digital allows for up to 24 individual digital private lines to be derived from a 1.544 Mbps circuit. This function is offered for the same customer at multiplexing hubs.
C.	Clear Channel Capability (CCC) provides a bipolar with eight zero substitution (B8ZS) encoding technique that allows a customer to transport 1.536 Mbps information rate signals over a Superpath 1.544 Mbps circuit with no constraint on the quantity or sequence of ones (mark) and zero (space) bits. This arrangement allows customers to derive 64 kbps clear channels. This service is provided only on Superpath 1.544 Mbps digital service between two customer designated premises and is subject to the availability of facilities. This arrangement requires that customer provided multiplexing equipment to be compatible with the B8ZS line code as specified in TR-NPL-000054 and PUB 62508.

2. SUPERPATH® 1.544 Mbps Digital Service

2.2 Responsibility of the Telephone Company

2.2.1 Service Provisioning Warranty

- A. The Telephone Company assures that when a customer orders Superpath, service will be installed and available for customer use no later than the confirmed due date. The failure of the Telephone Company to meet this confirmed due date will result in the credit of all applicable Superpath S&E charges for the local distribution channel, and central office multiplexer associated with the missed commitment. The S&E charges will be credited at the rate at which they are billed.
- B. The following service configurations are subject to the provisioning warranty.
- 1. Superpath provided on a two point basis between customer designated premises
- 2. Superpath provided between a customer designated premises and a Telephone Company hub where central office multiplexing is performed. The derived services associated with central office multiplexing are not included in the warranty.
- C. The service provisioning warranty does not apply under the following situations.
- 1. When the customer requests an expedited due date
- 2. When other telephone companies are involved in the installation
- 3. When the customer premises is inaccessible
- 4. When the customer changes interface requirements
- 5. When the customer is not ready to accept service
- 6. When building facilities are not ready (including space, cable support structures, building risers and entrance facilities to be provided by the building owner or his subcontracted vendors)
- 7. When the customer orders termination beyond the network interface
- 8. When the customer requests service rearrangements; or moves within the same building
- 9. When special construction is required to provision service
- 10. When the delay is caused by work stoppage, civil disturbances, criminal actions; or by fire, flooding or other occurrences attributed to an Act of God
- 11. When Superpath is provided with Network Reconfiguration service.

2.2.2 Interruption of Service/Maintenance Warranty Program

- A. When service is interrupted for 30 minutes or more a credit allowance will be made for the portion of the service which is affected, provided that the interruption is brought to the attention of the Telephone Company within ten days. For the purpose of determining the amount of allowance, every month is considered to have 30 days.
- 1. The total credit allowance in any one billing period cannot exceed 100% of the customer's monthly charge for service.

2. SUPERPATH® 1.544 Mbps Digital Service

2.2 Responsibility of the Telephone Company

2.2.2 Interruption of Service/Maintenance Warranty Program

A. (Continued)

- 2. Interruptions are credited to the customer at the proportionate monthly contract charge in half hour multiples for each half hour or major fraction thereof of interruption. The applicable credit is based on the following periods of interruption.
- a. Thirty minutes or more but less that two hours—Credit is 1/1440th per 30 minute period or fraction.
- b. Two hours or more—Credit is 35% of the applicable monthly charge or 1/1440th per 30 minute period whichever is higher.
- B. No credit allowance will be made for the following interruptions to service.
- 1. Service interruptions of less than 30 minutes
- 2. Service interruptions caused by the negligence of the customer or authorized user
- 3. Service interruptions resulting from the failure of equipment provided by the customer or authorized user
- 4. Service interruptions which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made begins on the seventh day after the customer receives the Telephone Company's notification of the need for replacement and ends on the day after the Telephone Company receives the customer's authorization for replacement
- 5. During periods when the customer elects not to release the service for testing and/or repair
- 6. During periods when the customer or user has released the service for rearrangement purposes or for the implementation of a customer order.

2. SUPERPATH® 1.544 Mbps Digital Service

2.3 Regulations

2.3.1 Minimum Period

A. The minimum service period is three months

2.3.2 Determination of Mileage

- A. Mileage used to determine the rate for a local distribution channel is the airline distance measured, in increments of ½ mile, directly between the customer's premises and the serving central offices.
- B. Mileage used to determine the rate for a 1.544 Mbps interoffice channel is the airline distance measured, in one mile increments, directly between the serving central offices or between a serving central office and the Telephone Company multiplexing hub.

2.3.3 Application of Rates and Charges

- A. Premises Work Charges apply in addition to the monthly rates and S&E charges for service.
- B. Interoffice Channels—When the interoffice channel is connected at the same time as the local distribution channel, the S&E charge applies, per interoffice channel.
- 1. When the interoffice channel is installed without the associated local distribution channel the interoffice S&E charge applies as does an additional S&E charge which is assessed per interoffice channel.

C. | Optional Features

- 1. For central office multiplexing DS1 to Voice, rates and charges for voice grade connections from the central office multiplexer for Private Line Types 2001A, and 2001B include signaling arrangements. Rates and charges for conditioning for Private Line Series 3000 analog data voice grade connections are explained in Part B, Section 2.
- 2. Rates and charge for voice grade connections from the central office multiplexer to a customer premises or a foreign exchange service in a different serving central office are provided as Private Line Series 2000 and 3000 channels.
- 3. For central office multiplexing DS1 to Digital, rates and charges apply for digital private line connections from the central office multiplexer to a customer premises.

2. SUPERPATH® 1.544 Mbps Digital Service

2.3 Regulations

2.3.4 Variable Term Payment Plan (VTPP)

- A. The monthly rates and S&E charges for Superpath are offered under the VTPP as described herein and in Part A, Section 1. The VTPP monthly rates and S&E charges are payable over the following Optional Payment Periods (OPP) as selected by the customer. Only the local distribution channel, intracentral office distribution channel, central office multiplexing and interoffice channels are eligible for the OPPs of 36 month or 60 months.
- 1. The available OPPs for Superpath monthly rates are month-to-month, 36 months and 60 months.
- 2. The available OPPs for Superpath S&E charges are 36 months and 60 months.
- a. When a customer selects the S&E charge 36 or 60 month OPP, their S&Es reflect a 50% reduction. The total number of S&E charges included in an OPP may not exceed the total number of local distribution channels and interoffice channels included in the OPP.
- **b.** The OPP selected for the S&E charges must be the same as the OPP established for monthly rates.
- c. An OPP may not be established only for S&E charges. The monthly rates for the channels which incurred the charges must also be included.
- **B. Termination Liability** If a customer terminates service or cancels an OPP before the expiration of a commitment period the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges also apply, in addition to the discounted monthly rates for each local distribution channel and for the interoffice channels. The termination charges applicable to Superpath are dependent upon the payment period selected by the customer (refer to Exhibits 2.3.4-1 and 2.3.4-2).
- 1. When a customer disconnects some or all discounted channel in order to replace them with other Telephone Company provided channels the appropriate minimum service period charges would apply. The termination liability does not apply provided that the new orders for the new channels and the disconnect of the existing channels are placed with the Telephone Company at the same time, the new channels have an equal or higher channel capacity than the disconnected channels and the term plan of the new service should be of equal or greater length than the remaining commitment period of the service being disconnected.
- 2. A customer may, at any time prior to the expiration of the selected payment period for an existing OPP, change to an OPP with a longer payment period at the then effective discount. No termination liability charges will apply for any services extended under the longer commitment period. The monthly rates applicable for the longer commitment period will apply effective with the next bill day following the request for the change.
- **C. Expiration** At the end of the payment period, the customer will have the option of subscribing to any then effective discount plans or retaining the service under the standard rates in effect at the time. If the customer does not notify the Telephone Company of its choice, standard rates will be applied upon expiration of the payment period.

(T)

(Ç)

个

Issued: June 5, 2003 Effective: July 5, 2003 J. Michael Hickey President-NH

- 2. SUPERPATH® 1.544 Mbps Digital Service
- 2.3 Regulations

23.4 Variable Term Payment Plan (VTPP)

D. Transfer of Service will not be provided.

2. SUPERPATH® 1.544 Mbps Digital Service

2.3 Regulations

2.3.4 Variable Term Paymen	t Plan (VTPP)
VTPP Termination (Exhibit 2.3.4-1 Charges by Monthly Rate Payment Periods
Payment Period	Termination Charges
Month-to-Month	None
36 Months	50% of the present value of the remaining monthly payments
60 Months	50% of the present value of the remaining monthly payments

- **SUPERPATH® 1.544 Mbps Digital Service Regulations** 2.
- 2.3

2.3.4 Variable Term Payment Plan (\	VTPP)
Exhibit 2.3.4-2 VTPP Termination Charges by S&E Charges Payment Periods	
Payment Period	Termination Charges
36 Months	100% of the present value of the remaining monthly payments
60 Months	100% of the present value of the remaining monthly payments

3. SWITCHWAY® Switched 56 Kbps Service

3.1 General

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

3.1.1 Description A. Switchway is a digital, end to end public switched 56 kbps service that provides full duplex, synchronous information transport via a specially equipped measured access line. B. Switchway is provided where suitable facilities are available. The provision of access by the Telephone Company to the Switchway service network is subject to the availability of such facilities and does not create an obligation of the Telephone Company to construct facilities except as provided in Part A, Section 2. C. The customer dials the called number using normal dialing procedures for a local or toll call; only two point connections may be established at any time. D. Switchway may be used for the transmission of data communications to or from any station on the service.

3.1.2 Service Components Measured Access Line—A two point measured, switched digital transmission path between the customer's premises and the customer's serving wire center. The Switchway measured access line is a nonloaded metallic facility and the provision of this access line is dependent upon the technical and transmission limitations necessary to provide this service which includes a maximum loop length of 18,000 feet between the customer's premises and the serving wire center. Service Arrangement—An arrangement consisting of a hardware and software located at Telephone Company designated Switchway wire centers that is necessary to provide 56 kbps switched service. Service may be provided from other wire centers not equipped for Switchway through a remote service arrangement. Remote Service Arrangement—A two point digital transmission path between the customer's serving wire center and a Telephone Company designated Switchway wire center where Switchway is available. The mileage for remote service is based on the airline distance using V&H coordinates between the serving wire center and the wire center where Switchway is available. **Network Call Usage** is the rates applicable for chargeable time which contains the initial period charges or the initial period and overtime charges.

- 3. SWITCHWAY® Switched 56 Kbps Service
- 3.2 Responsibility of the Telephone Company

3.2.1 Cancellation

A. When an application for service is cancelled or changed in whole or in part by the applicant prior to completion of the construction and installation, the regulations in Part A, Section 1 apply.

3.2.2 Interruption of Service

A. For any complete failure of Switchway which continues for more than 24 hours, credit will be applied according to Part A, Section 1.

3.2.3 Suspension of Service

A. Switchway is not subject to a temporary suspension of service.

- 3. SWITCHWAY® Switched 56 Kbps Service
- 3.3 Responsibility of the Customer

3.3.1 Terminal Equipment

The customer shall provide terminal equipment compatible with the interface specifications as described in TR-EOP-000277.

- 3. SWITCHWAY® Switched 56 Kbps Service
- 3.4 Regulations

3.4.1 Minimum Period

- A. The minimum period for which service is furnished and for which charges are applicable is one month.
- 1. The charges for a fractional part of a month which follows and is consecutive with the full month will be a proportionate part of the monthly charge using the same ratio that the actual number of days service is furnished bears to 30 days.

3.4.2 Special Construction

A. The regulations specified in Part A, Section 2 are applicable to Switchway.

3. SWITCHWAY® Switched 56 Kbps Service

3.5 Application of Rates and Charges

3.5.1 General

A. Service charges, including those for moves and changes, apply in addition to the charges for Switchway specified herein.

3.5.2 Network Call Usage

- A. Timing of Messages—All network usage is timed and measured. Chargeable time begins when the connection is established between the calling party station and the called party. Chargeable time ends when the network connection is released.
- B. Usage Time
- 1. Charges for calls within the local service area will be determined based on the actual time of each call for each minute or fraction thereof.
- 2. Charges for each call outside the local service area will be determined based on the actual time of each call in one second increments. At the end of the customer's billing period when the total charges for usage would result in fractions of a cent being billed, the total will be rounded to the nearest cent for billing purposes.
- C. Calling Area—The local service area of each exchange consists of the serving exchange, the additional exchanges included in the extended local service area and the municipalities specified in Part A, Section 5.
- 1. Calls may be completed to points within the local service area subject to call establishment and call connection charges.
- a. For calls within the local service area, a 50% discount applies on calls made from 9PM to but not including 9AM weekdays and all day on Saturdays, Sundays, and on Thanksgiving Day (the fourth Thursday in November), Christmas Day (December 25), New Year's Day (January 1), Independence Day (July 4) and on Labor Day.
- 2. Calls may be completed to locations outside of the customer's local service area during all time at periods per message rates, and per minute, per second rates which vary according to time period.
- **a.** The Day period rate is subject to a credit based on usage amounts when such amounts exceed 240 minutes.
- **b.** Day rates apply Mondays through Fridays from 8AM to, but not including, 5PM.
- c. Evening rates apply Sundays through Fridays from 5PM to, but not including, 11PM. On Christmas Day (December 25), New Year's Day (January 1), Independence Day (July 4), Thanksgiving Day, Labor Day, or on resulting legal holidays when Christmas, New Year's, or Independence Day legal holidays fall on dates other than December 25, January 1, or July 4, respectively, the holiday rate is the evening rate. Evening rates apply, unless a lower rate would normally apply.
- d. Night and weekend rates apply Sundays through Thursdays from 11PM to, but not including, 8AM of the following day, and from 11PM Fridays to, but not including, 5PM Sundays.

4. INFOPATH® Packet Switching Service

4.1 General

Customers with INFOPATH® Packet Switching service connected prior to January 15, 2005, may retain this service at their existing location only. Additions, rearrangements and moves of service are not permitted.

(N) (N) (N)

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

4.1.1 Definitions

Access Concentrator (AC)—The network equipment which collects customer data information from many access lines, multiplexes, routes and switches the data. The access concentrator improves the efficiency of a communications circuit by combining a number of low speed inputs into a single, higher speed output.

Asynchronous—A form of communications whereby each data character is individually synchronized by means of start and stop elements.

Bursty Traffic—Communications traffic characterized by short periods of high intensity separated by fairly long intervals of little or no utilization.

Call Request Packet—The first packet in each session which contains the call request information.

Data Circuit Terminating Equipment (DCE)—Telephone Company network channel terminating equipment that interfaces with customer provided data terminal equipment.

Data Terminal Equipment (DTE)—Customer provided equipment, either terminals or computers, that interfaces with the Infopath packet switching service network.

Kilopacket—One thousand packets.

Logical Channel—A virtual communications channel through the network that allows simultaneous transmission of sequenced data packets through the network.

Octet—A continuous sequence of eight binary digits of information.

Packet—A continuous sequence of octets of information which is switched through the network as an integral unit. A packet can contain up to 256 octets of customer data as well as transmission and error control information. For billing purposes, a packet contains up to 128 octets.

Permanent Virtual Circuit—A circuit which is the electronic equivalent of a private line between two destination network addresses.

Port Connection—A communications interface provided by the Telephone Company through which the customer or an authorized user is connected to the network.

Protocol—A set of rules and procedures that permit the orderly exchange of information within and across a network

Switched Virtual Circuit—A communications channel (logical channel) established on a switched basis as a result of the call establishment procedure via one network address calling another network address. The communications channel exists until the call is terminated by either the calling or called party.

Issued: December 13, 2005 Effective: February 11, 2005 Lisa M. Thome Vice President-NH

Docket No. DT 04-234

4. INFOPATH® Packet Switching Service

4.1 General

4.1.1 Definitions

Synchronous—A form of communications where characters or bits are sent in a continuous stream, with the beginning of one continuous with the end of the preceding one. Separation of one from another requires the receiver to maintain synchronization to a master timing signal.

Throughput—The amount of information that can be moved through a port connection to and from a customer's computer or terminal during a specified time interval.

Virtual Circuit—A logical channel established as a result of the call establishment procedure to a network address that exists for a period of time until either end of the circuit initiates the call clearing procedures.

X.25 Protocol—An international protocol that defines the interface between the customer's equipment and a public packet network data circuit terminating equipment for public packet switched networks. It is a reference to the section of the published international recommendations established by the International Telephone and Telegraph Consultative Committee (CCITT) where this particular type of protocol generally monitors electrical interface, error checking, etc.

4.1.2 Description

- A. Infopath provides synchronous and asynchronous network transport of data through the network which usually involves relatively short bursts of data. The data are separated into discrete segments called packets for high speed transmission through the network. All packets are interleaved (statistically multiplexed) on the facilities as they are transmitted. These packets may contain up to 256 characters of data.
- 1. Asynchronous transmission is a form of communications whereby each data character is individually synchronized by means of start and stop elements. Asynchronous service supports start stop mode operation with ASCII codes at speeds up to 9.6 kbps. With asynchronous access, the access concentrator will perform a built in Packet Assembler/Disassembler (PAD) function to convert the data into packets utilizing a common protocol (X.25) and route them through the network to the specified destination.
- B. Routing and control information (packet header) is automatically inserted at the beginning of each packet, and error detection information (packet trailer) is automatically inserted at the end of each packet. Complete with this information, the entire packet is routed through the network to its intended destination.
- 1. Error checking is performed on each packet as it is transmitted through the network. If a packet and/or format error is detected, the sending equipment is automatically instructed to retransmit the message. A message may consist of a single packet or multiple packets.

4. INFOPATH® Packet Switching Service

4.1 General

4.1.2 Description C. The major components of the packet network are Access Concentrators (AC) which perform the interfacing and concentration functions (statistical multiplexing), switching and routing, and the network facilities. D. Infopath will be furnished only when the customer has subscribed to an adequate number of port connections or logical channels as established by the Telephone Company to accommodate the service requested, (i.e., originating, terminating or two-way calling) without impairing the network. E. Infopath is provided where suitable facilities are available.

4.1.3 Service Options

- A. Various options permit customers flexibility in specifying how they operate on the network. These options are Switched Virtual Circuit service and Permanent Virtual Circuit service. In addition, optional features are available which expand customer capabilities on the Infopath service network. Switched and permanent virtual circuits may be designated as one-way incoming, one-way outgoing, or two-way.
- 1. Additional restrictions may be placed on the circuits to allow DTE to place calls only to predesignated DTE or to receive calls only from predesignated DTE or to restrict both the origination and termination of calls.
- **a. Switched Virtual Circuit (SVC)** service is a standard Infopath service and utilizes a temporary switched data connection which permits an end user to establish a call to another point on the network.
- b. Permanent Virtual Circuit (PVC) service is an optional type of Infopath service. It provides the customer with the electronic equivalent of a private line between two points. At the time of subscription to this form of service, a virtual circuit is established between two specific customer locations which are connected to the network. While no physical circuits are dedicated, the two locations are electronically connected together.
- B. Closed User Groups—The customer has the option of establishing Closed User Groups which permit the customer to arrange a subnetwork within the public packet switching network. This option provides for communications only between predesignated terminals on the network.

4. INFOPATH® Packet Switching Service

4.1 General

4.1.4 Service Components-Synchronous

- A. The service components which apply to synchronous Infopath are port connections, network usage, and optional features.
- 1. Port Connections—Each port connection comes with one logical channel. The port connections are as follows.
- a. Access Concentrator Port Connection (Low to Medium Throughput) provides the customer with dedicated access to a port on the access concentrator at transmission speeds of up to 9.6 kbps using Digipath Digital service II, DovPath or Type 3002 private line channels. This type of connection has both originating and terminating capabilities using X.25 protocol. The X.25 protocol provides the capability of establishing multiple virtual communication links from the customer's premises through the packet switching network. The maximum number of logical channels available is 32 per port.
- 2. **Network Usage** on the Infopath packet switching network is comprised of call set-up and packet transport, per minute or transaction. Usage charges may be billed to the originator or receiver of packets, as arranged for on each call. Packet switching network usage is aggregated per billing month. When more than 2,500 kilopackets are transmitted in a billing month, rates are discounted.
- **a.** Call Setup initiates a request on a switched virtual circuit for the establishment of a virtual channel for the duration of the call. Call setup is billed on a per call basis.
- b. Packet Transport provides for the routing of packets over the packet switching network. Usage charges are based on the number of packets transmitted (either sent or received while the call is on the Infopath service network). The minimum unit of billing is a kilopacket. A kilopacket is 1,000 packets of two segments of 64 characters each.
- c. Per Minute is usage billed on a per minute basis. The duration of each call is recorded in minutes and seconds and rounded to the nearest minute at the end of the month. Call setup, holding time and kilopackets do not apply to per minute billing.
- d. Transaction is a billing arrangement available to Infopath customers with point-of-sale applications, where customers have a need to transfer small amounts of data many times a day, e.g., credit verifications. Usage charges for call setup, holding time and kilopackets do not apply to transaction billing. A transaction is defined as 10 packets or fraction thereof.
- 3. Optional Features provide the customer with additional capabilities for interaction with the Infopath service packet switching network and should be selected by the customer at the time of subscription.
- **a. Abbreviated Addressing** allows the customer to specify an alphanumeric code from two to four characters that can be used in place of a data telephone number for easier end user access.
- b. Additional Logical Channel allows the customer to simultaneously operate multiple channels on a single port.

4. INFOPATH® Packet Switching Service

4.1 General

4.1.4 Service Components-Synchronous

A.3. (Continued)

- c. Call Detail provides for printed detail of each call billed to the customer for use of the Infopath service packet switching network. This option is available on either a continuous monthly basis or on a per request basis.
- d. Call Rerouting is a data call forwarding capability that allows the customer to predefine one alternate destination to which calls will be rerouted in the event of a failure or busy condition at the primary destination.
- c. Closed User Group allows the customer to establish a subnetwork among a restricted number of other users within the Infopath service packet switching network who can communicate privately with each other. Members of the closed user group may be designated as having incoming, outgoing, or restricted access.
- f. Multiple Network Address allows a customer to subscribe to additional data terminal numbers in groups of ten. These numbers can be used with existing packet network connections and allow messages to be delivered to the customer's prespecified destinations.
- **g. Permanent Virtual Circuit** is a circuit which is the electronic equivalent of a dedicated private line between two destination network addresses.

4.1.5 Service Components-Asynchronous

- A. The service components which apply to asynchronous Infopath are access concentrator port connections, network usage, and optional features.
- **1.** Access Concentrator Port Connections include public dial in access, private dial out access and dedicated access.
- a. Public Dial In Access for originating calls only, is initiated by dialing an Infopath packet switching service network number via an exchange line. Applicable message unit and toll charges apply for each completed call to the Infopath packet switching service network access number. Public dial in access supports asynchronous protocol and transmission speeds of up to 9.6 kbps. A Network User Identification (NUI) code is required for log-on to the network.
- b. Private Dial In Access is the same as the public dial in access port connection except that it is dedicated to one customer. Private dial in access is initiated via a line which connects the end user to the central office circuit switch; the line may be any type which has dial up network exchange capability. A separate business line with dial up network exchange capability, excluding Centrex and Feature Group A (FGA), is required to provide the customer who subscribes to the private dial in port with a connection from the central office circuit switch to the access concentrator. The customer who subscribes to the private dial in port will be billed for the additional line.

4. INFOPATH® Packet Switching Service

4.1 General

4.1.5 Service Components-Asynchronous

A.1. (Continued)

- c. Private Dial Out Access enables a customer who already has access into Infopath, to place a call out of an access concentrator to a destination on the circuit switched network. This port connection is dedicated to one customer and supports transmission speeds up to 2.4 kbps. A separate business line, as specified for the private dial in port connections is required to connect the central office circuit switch to the access concentrator. The customer is responsible for all appropriate charges that apply to the exchange line as well as for charges that apply to the outgoing call.
- **d. Dedicated Access Port Connection** provides dedicated access from a customer's premises to a port on the access concentrator at transmission speeds of up to 9.6 kbps using Private Line Type 3002 channels for intraexchange and interexchange channels.
- 2. **Network Usage** for asynchronous service is the same as for synchronous service (refer to Section 4.1.4), plus holding time for each minute of connect time in public dial ports.
- 3. Optional Features
- a. Abbreviated Addressing
- b. | Call Detail
- c. | Call Rerouting
- d. | Closed User Group
- e. Network User Interface (NUI) Code is an alphanumeric code which identifies the user to the Infopath network.
- f. | Permanent Virtual Circuit

- 4. INFOPATH® Packet Switching Service
- 4.2 Responsibility of the Telephone Company

4.2.1 Cancellation

A. When an application for service is cancelled or changed in whole or in part by, or on behalf of the applicant prior to completion of construction and installation, the applicant is required to pay to the Telephone Company, upon demand, the total costs and expenses in connection with providing and removing the service less the estimated recoverable value if any.

4.2.2 Interruption of Service

A. For any complete failure of an Infopath service port which continues for more than 24 hours, credit will be applied according to Part A, Section 1.

4.2.3 Suspension of Service

A. Infopath is not subject to a temporary suspension of service.

- 4. INFOPATH® Packet Switching Service
- 4.3 Responsibility of the Customer

4.3.1 Data Terminal Equipment

Customers must provide DTE in conformance with the interface specifications as described in NTR-74250 (X.25 Protocol) and NTR-74252 (Asynchronous Protocol).

4. INFOPATH® Packet Switching Service

4.4 Regulations

4.4.1 Minimum Period

- A. The minimum period for which service is furnished and for which charges are applicable is one month.
- 1. The charges for a fractional part of a month which follows and is consecutive with a full month will be a proportionate part of the monthly charge using the same ratio that the actual number of days service is furnished bears to 30 days.

4.4.2 Special Construction

A. The regulations specified in Part A, Section 2 for the construction of facilities are applicable.

4.4.3 Application of Rates and Charges

- A. | Infopath Packet Switching-Synchronous
- 1. Access Concentrator Port Connections—Low to Medium Throughput—Rates and charges include central office equipment at the access concentrator. In addition, the service requires a Private Line Type 3002 channel or a point to serving wire center arrangement (i.e., DDSII), as appropriate and a central office interface.
- **2. Central Office Interface**—Monthly rates and NRCs apply for each interface.
- a. For interface option changes, service charges apply.
- B. Infopath Packet Switching-Asynchronous
- 1. Access Concentrator Port Connection—Rates and charges are dependent upon the type of port connection access selected by the customer. Public and private dial access include central office equipment at the access concentrator.
- a. The dedicated port connection requires a Private Line Type 3002 channel from the customer's location to the access concentrator and a central office interface.
- C. Network Usage—Charges for synchronous and asynchronous service are based on calls originated to the network addresses in the serving area. A charge applies for call setup, for packets transmitted during virtual connection, for per minute and for transaction usage. Call setup and packet are accumulated and billed on a monthly basis. With Asynchronous service when a customer chooses to have usage billed as call setup and packet transport an additional service usage charge applies per public dial access, per minute or fraction thereof when access to the Infopath service network is via public dial.
- 1. Time Periods—Network usage call setup rates are time of day sensitive. The time of day periods are as follows.
- a. Day—8AM-5PM
- b. | Evening—5PM-11PM

INFOPATH® Packet Switching Service Regulations 4.

4.4

4.4.3	Application of Rates and Charges	
C.	C.1. (Continued)	
c.	Night—11PM-8AM	
D.	Optional Features —When installed subsequent to initial Infopath service, optional features are subject to NRCs. When optional features are requested subsequent to the initial Infopath service order, one or more optional features per port may be included, per service order, for the one NRC. An NRC is not applicable when optional features are ordered in conjunction with the initial Infopath service.	
1.	Call Detail may also be provided on a per request basis at the same rate as the monthly rate.	
E.	Software Changes —When software changes are requested subsequent to the initial Infopath service order, one or more software changes per port may be included, per service order for the one NRC. An NRC is not applicable when software changes are ordered in conjunction with the initial Infopath service.	
F.	Service Charges apply as appropriate, and are in addition to the rates and charges for services specified herein.	
G.	LSPP—Infopath may be billed under the LSPP described in Part A, Section 1.	

5. **Digital PBX Services**

5.1 **FLEXPATH®**

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M. Section 1.

5.1.1 Description

- Flexpath digital PBX service, one of the Pathways family of digital services, provides a digital path from a suitably equipped central office to a customer's digital Private Branch Exchange (PBX), or to a Telephone Company central office where service is cross connected to NRS, allowing access to and from the exchange and toll network via exchange trunk lines, WATS lines and other network access lines, including Direct Inward Dialing (DID) capability.
- DID permits incoming dialed calls from the network to reach a specific station line of a PBX or other customer premises equipment without the assistance of an attendant. The facilities for the service, which are located in the suitably equipped central office, transmit and receive digital signals to and from switching equipment located on the customer's premises.
- DID capability is furnished upon the condition that the customer must subscribe to and have available adequate facilities to permit the use of service without injurious effect on general telephone service.
- Flexpath is furnished subject to availability of facilities and only within a Local Access and Transport Area (LATA). Flexpath may be provided from the subscriber's normal central office, or from a foreign exchange or foreign central office or from a central office with NRS capabilities. Clear Channel Capability, which provides full bandwidth utilization, will be provided where available. The line code used to provide Clear Channel Capability is bipolar with 8 zero substitution (B8ZS).

Flexpath is offered on a measured service-4E basis and on an unlimited service basis where unlimited PBX service is available.

No usage allowance is provided.

5.1.2 **Service Components**

Issued: March 9, 2004

Effective: April 8, 2004

- Digital Ports provide and identify up to 24 trunk circuits on a Digital Transport Facility (DTF). A digital port furnishes a group of up to 24 trunk circuits. In this group, there can be DID and non DID exchange trunks. WATS lines and other network access lines. The subscriber must initially indicate the number of these trunks and lines and their respective locations within each DTF channel.
- Digital Transport Facility (DTF) is a 1.544 Mbps transmission channel connecting a customer's premises with the serving wire center, which provides two-way transmission of digital signals for a capacity of up to 24 trunk connections.
- Customers may utilize alternate high capacity digital facilities that meets the specifications as determined by the Company in lieu of the Flexpath Digital Transport Facility specified herein. The applicable rules, regulations and rates from the appropriate Company Tariff will apply for the alternate high capacity digital facilities.
- Flexpath Service DID Telephone Numbers are blocks of 100 telephone numbers (or fraction thereof) for provision of direct inward dialing.

Michael

Docket No. DT 04-033

(Й)

(N)

(Ň) (T)(C)

President-NH

5. Digital PBX Services

5.2 Analog to Digital (A/D) Conversion PBX Service

5.2.1	Description
A.	A/D Conversion PBX service provides a digital path from a central office to a customer's digital PBX allowing exchange trunk line access to and from the exchange and toll network. The facilities for the service, which are located in the central office, convert analog signals to digital signals and permit them to be transmitted and received to and from switching equipment located on the customer's premises.
В.	A/D Conversion is offered only from suitably equipped analog central offices. A/D Conversion is furnished subject to the availability of facilities and only within a LATA. A/D Conversion may be provided from the subscriber's normal central office, or from a foreign exchange or foreign central office, subject to the availability of facilities.
C.	A/D Conversion is offered on a measured service-4E basis and on an unlimited service basis where unlimited PBX service is available.
1.	No usage allowance is provided.

5.2.2 Service Components A. A/D Converter provides signal conversion and identification of up to 24 trunk circuits on a DTF. 1. A/D Converter furnishes a group of up to 24 trunk circuits. In this group, there can be both DID and non DID exchange trunks. The subscriber must initially indicate the number of DID and non DID exchange trunks and their respective locations within each channel. B. Digital Transport Facility (DTF) is a 1.544 Mbps transmission channel connecting a customer's premises with the serving wire center, which provides two-way transmission of digital signals for a capacity of up to 24 trunk connections.

- 5.
- Digital PBX Services Responsibility of the Telephone Company 5.3

5.3.1	Suspension of Service
A.	Flexpath and A/D Conversion services are not subject to the provisions of temporary suspension of service.

- 5. Digital PBX Services
- 5.4 Responsibility of the Customer

5.4.1 Customer Equipment

- A. A customer provided Channel Service Unit (CSU) or an equivalent unit may be required at each termination of a DTF on the customer's premises. A unit provided by the customer must comply with the appropriate technical standards.
- B. Subscriber provided switching systems must be arranged to provide for the interception of assigned but unused station numbers, including vacant station number groups as required.

Digital PBX Services

5.5 Regulations

5.5.1 Minimum Period

- A. The minimum period for a DTF is one year. A one month minimum service period is applicable to DID telephone numbers, each digital port and each A/D converter.
- 1. Termination Charge for a DTF disconnected prior to the expiration of its minimum service period is the total of remaining monthly payments.

5.5.2 Determination of Mileage

- A. Digital Transport Facility—Mileage used to rate the DTF is the direct airline distance measured between the customer's premises and the serving wire center.
- B. Interoffice Channel—Mileage used to rate the interoffice channel is the direct airline distance measured between the serving wire centers.

5.5.3 Changes and Relocations

- A. A subscriber requested change in the central office designation used to provide Flexpath or A/D Conversion or a relocation of service to another premises or a relocation to another premises or a connection to a central office with NRS capabilities will be considered a disconnection of existing Flexpath or A/D Conversion and a connection of new service.
- 1. Termination charges, if applicable, apply for disconnected service, and a new minimum service period is established for the new service.

5.5.4 Provisions for Other Services

A. One directory listing without charge is furnished for each customer of Flexpath or A/D Conversion.

5.5.5 Application of Rates and Charges

- A. The rates and charges specified herein are in addition to all other applicable regulations, rates and charges as specified in Part A and Part B. All rates and charges set forth herein provide for the furnishing of service where suitable facilities are available and do not create an obligation of the Telephone Company to construct facilities especially for this service.
- B. Foreign Exchange/Foreign Central Office—Where a subscriber chooses to have Flexpath or A/D Conversion provided on a foreign exchange or foreign central office basis, the monthly rate of an interoffice channel applies (refer to Part C, Section 2).

Digital PBX Services Regulations 5.

5.5

5.5.5	Application of Rates and Charges
C.	Local Messages —All local messages are provided at the local usage charge as specified in Part A, Section 5 for business measured service-4E.
1.	Unlimited service is provided per trunk circuit equipped and at the rates and charges explained in Part H, Section 5.
D.	DID Numbers are provided at the rates and charges specified in Part A, Section 12.
E.	Any subsequent change in the initial DID/non DID Dedicated Toll Free Service (DTFS) lines configuration will result in the application of the appropriate charges.
F.	PBX Trunk, WATS and Other Network Access Line rates and charges, as contained in other sections of the tariff, are not applicable to Flexpath or A/D Conversion. Other rates and charges for associated services, which apply on a per trunk basis, apply to each of the 24 trunk circuits furnished in a digital port or furnished with an A/D Converter, provided the trunk circuits are in-service.
G.	Digital Transport Facility (DTF) provided at the appropriate rates and charges.
Н.	Interoffice Channels—Charges apply as specified in Part C, Section 2.
I.	FRPP —Monthly rates for Flexpath and A/D Conversion are offered under the FRPP described in Part A, Section 1. Currently applicable rates are contained in the Telephone Company's Price List.
J.	Flexpath, when ordered by a wireless carrier is exempt from end user access charges as specified in Bell Atlantic Telephone Companies Tariff FCC No. 11, Section 4.6.2.

6. High Capacity FlexGrow® Service

6.1 Description

6.1.1 General

Availability—**Effective April 17, 2003 High Capacity FlexGrow service** will no longer be available for new customers. High Capacity FlexGrow service is only available to existing customers for changes or rearrangements to existing systems.

(N)

(Ņ)

- A. High Capacity FlexGrow service (FlexGrow) is an intra-exchange multifunctional digital service for business customers that provides voice and high-speed data services on an integrated basis over a single high-capacity T1 facility. The service requires channel bank equipment to be provided on the client's premises to terminate the T1 (DS1) facility. This customer premises equipment (CPE) is not a part of the regulated service but must be compatible with the equipment in the serving central office of the customer.
- **B. FlexGrow** is offered in capacity increments of whole T1 lines, which can be used to transport analog voice-grade signals (POTS services) over channels of 64 kbps and data signals over a bonded channel. At the customer's request, the Telephone Company will channelize the available bandwidth and will route voice-grade and high-speed data signals between the customer's premises and the customer's serving central office where FlexGrow will terminate in a suitably equipped digital hubbing arrangement.
- 1. The voice grade channels will then terminate in a local switch to provide the customer with POTS type services.
- 2. The Telephone Company will, if necessary, further route the high-speed (bonded into a 256 kbps, 384 kbps, 512 kbps or 768 kbps channel) data signals within the same Local Access Transport Area (LATA) between the digital hubbing arrangement in the customer's serving central office and a second, suitable digital hubbing arrangement in a distant central office. No additional interoffice mileage charges shall apply. At either the customer's serving central office or the distant Verizon central office, the bonded channel which is terminated in a digital hubbing arrangement can be electronically connected at the customer's direction to a compatible bonded channel designated by the customer and in turn transported to the location specified by the customer or its authorized representative.
- **C. Service Options**—Customers may select from the following four options in determining how the available bandwidth on the single high-capacity T1 facility shall be allocated:
- 1. FlexGrow 256—Four DS0 channels are linked to provide one 256 kbps channel for high-speed data access, leaving a total of twenty DS0 channels available for voice-grade signals.
- 2. FlexGrow 384—Six DS0 channels are linked to provide one 384 kbps channel for high-speed data access, leaving a total of eighteen DS0 channels available for voice-grade signals.
- 3. FlexGrow 512–Eight DS0 channels are linked to provide one 512 kbps channel for high-speed data access, leaving a total of sixteen DS0 channels available for voice-grade signals.

Issued: March 18, 2003 Effective: April 17, 2003 J. Michael Hickey President-NH

6. High Capacity FlexGrow® Service

6.1 Description

6.1,1	General		
C.	(Continued)		
4.	FlexGrow 768–Twelve DS0 channels are linked to provide one 768 kbps channel for high-speed data access, leaving a total of twelve DS0 channels available for voice-grade signals.		
D.	Feature Packages —The FlexGrow feature package is a discounted billing arrangement for business customers who subscribe to one of the following FlexGrow feature packages for a minimum of one year.		
1.	Package No. 1-Call Waiting, Call Forwarding and Call Waiting ID with Name		
2.	Package No. 2-Call Waiting, Call Forwarding and Caller ID		
3.	Package No. 3-Call Forwarding, Three-way Calling and Caller ID		
4.	Package No. 4-Call Waiting, Three-way Calling and Call Waiting ID with Name		
5.	Package No. 5-Call Waiting, Call Forwarding, Three-way Calling and Caller ID		
6.	Package No. 6-Call Waiting, Call Forwarding, Three-way Calling and Call Waiting ID with Name		
E.	All features are subject to their individual service regulations specified elsewhere in this tariff.		
F.	FlewGrow as set forth in this Section 6.1 of this tariff, has been replaced by Enhanced FlexGrow as set forth in Sections 6.2. Notwithstanding the regulations set forth in Section 6.2.3 following, the Telephone Company will continue to provide Flexgrow as set forth in this Section 6.1 to customers who subscribed to Flewgrow prior to January 20, 2002. Customers may also retain their service unless designated premises is moved, or they request a change to the service that results in disconnection service.		

6.1.2	Regulations
A.	FlexGrow service must be used in conjunction with one or more other tariffed services which will be provided under their own service regulations. The customer must select either basic business exchange service or Centrex Plus service as the underlying vehicle for FlexGrow service.
В.	FlexGrow is offered only from those central offices that are equipped with available proper digital hubbing arrangements.
C.	FlexGrow is furnished subject to the availability of facilities.
D.	The customer will be required to provide the technically compatible CPE needed to operate the service. The CPE is a Channel Bank which will terminate on the customer's side of the demarcation point and provide the de-multiplexing which will separate the channels and provide the analog dial tone lines, e.g. 20 lines, and the data channel, e.g. 256 kbps. The bonded data channels will be assigned to the first channels of the system. For example, FlexGrow 256 will use channels 1 through 4 for the bonded data channels.
E.	Temporary suspension of service is not available with this service.

Issued: March 18, 2003 Effective: April 17, 2003 J. Michael Hickey President-NH

6. High Capacity FlexGrow® Service

equipment or otherwise affect its use or performance.

6.1 Description

6.1.2 Regulations

F. Termination Liability—The minimum service period for FlexGrow service is one year. If service is terminated prior to the one-year period, the customer is responsible for the balance of the monthly recurring charge for the remainder of the one-year period.

(N) |

A The Telephone Company is responsible for maintaining and repairing only the facilities which it furnishes. The customer may not rearrange, disconnect, remove or attempt to repair any facilities installed by the Telephone Company. B. The Telephone Company is not responsible for the installation, operation or maintenance of any terminal equipment or communications systems provided by the customer. The Telephone Company's responsibility shall be limited to the furnishing of telecommunication and data communication facilities suitable for FlexGrow service in a manner proper for such digital service. C. The Telephone Company is not responsible to the customer if changes in any of the facilities, operations or procedures of the Telephone Company, utilized in the provision of this service, render any facilities provided by a customer obsolete or require modification or alteration of such

6.1.4	Application of Rates and Charges		
A.	The FlexGrow monthly rate includes the monthly rate for business basic exchange service line and/or the Centrex Plus line.		
В.	The monthly rate does not include the monthly rates for optional FlexGrow feature packages or Centrex Plus features.		
C.	. The monthly rate applies whether or not all of the DS0 channels have been activated and are being utilized.		
D.	Charges apply for cancellation or change of application for service.		
E.	Local Messages are provided at the local usage charges as specified in Part A, Section 5.		
F.	Nonrecurring charges apply for cancellation or change of application for service if construction has begun.		

(N)

Issued: December 21, 2001 Effective: January 20, 2002 or or -250 By Leffer J. Michael Hickey President-NH

melael Hickey

6. High Capacity FlexGrow® Service

6.2 Enhanced FlexGrow® Service

(N)

6.2.1	Definitions			
A.	DS0 describes transmission bandwidth of 64 kilobits per second (Kbps).			
В.	64 Kbps describes a clear channel digital data transmission utilizing the full bandwidth available on a DS0 channel.			
C.	Grooming – Enhanced FlexGrow circuits may be groomed at a Hub to allow lower bandwidth channels to be grouped for higher bandwidth applications.			
D.	Service Level Grooming bonds contiguous channels to attain greater transmission speeds.			
1.	Service Level 4 – bonds four DS0 channels together to attain a 256 Kbps speed.			
2.	Service Level 6 – bonds six DS0 channels together to attain a 384 Kbps speed.			
3.	Service Level 8 – bonds eight DS0 channels together to attain a 512 Kbps speed.			
4.	Service Level 12 – bonds twelve DS0 channels together to attain a 768 Kbps speed.			
E.	Voice Grade Connectivity are channels which connect to either intraoffice or interoffice channels to reach a channel termination of a remote customer location or facility of a designated customer representative.			

6.2.2 General		
Α.	Enhanced FlexGrow® Service is an intraexchange, multifunctional digital service for business customers that provides voice and high-speed data services on an integrated basis over a single high-capacity T1 facility. The service requires channel bank equipment on the customer's premises to terminate the T1 (DS1) facility. The customer premises equipment (CPE) is not part of the regulated service but must be compatible with the equipment in the serving central office of the customer.	
B.	Enhanced FlexGrow® Service is offered in capacity increments of whole T1 lines, which can be used to transport analog voice grade signals over DS0 channels (64 Kbps capacity). High-speed data signals are available over bonded channels. At the customer's request, the Telephone Company will channelize the available bandwidth and will route voice grade and high-speed data circuits between the customer's premises and the customer's serving central office. The DS1 facility will terminate in a suitably equipped digital arrangement.	
C.	The following types of network services are available on a channelized basis via Enhanced FlexGrow® Service:	
1.	Analog Voice Service (local Exchange lines, PBX trunks, Digital Centrex Plus, voice grade private lines).	
2.	Dedicated Access at speeds of 256 Kbps, 384 Kbps, 512 Kbps and 768 Kbps.	

Issued: January 31, 2003 Effective: March 02, 2003 J. Michael Hickey President-NH

6. High Capacity FlexGrow® Service

6.2 Enhanced FlexGrow® Service

6.2.2	General		
D.	The Telephone Company will, if necessary, further route private line or dedicated services within the same Local Access Transport Area (LATA) between the digital hubbing arrangement in the customer's serving central office and a suitable digital hubbing arrangement in a remote central office. At either the customer's serving central office or the remote central office, the private line or dedicated channels which are terminated in a digital hubbing arrangement can be electronically connected to compatible channels designated by the customer or authorized representative. Initial service activation is required for a DS1 facility. Additional activity subsequent to the initial installation is required on a DS0 basis if capacity is available.		
E.	Feature Packages - Discounted billing arrangements are available for business customers who subscribe to one of the following FlexGrow feature packages for a minimum of one year.		
1.	Package No. 1— Call Waiting, Call Forwarding and Call Waiting ID with Name		
2.	Package No. 2— Call Waiting, Call Forwarding and Caller ID		
3.	Package No. 3— Call Forwarding, Three-way Calling and Caller ID		
4.	Package No. 4— Call Waiting, Three-way Calling and Call Waiting ID with Name		
5.	Package No. 5— Call Waiting, Call Forwarding, Three-way Calling, and Caller ID		
6.	Package No. 6— Call Waiting, Call Forwarding, Three-way Calling, and Call Waiting ID with Name		
7.	All features are subject to their individual service regulations specified elsewhere in this tariff.		
F.	Both the FlexGrow Feature packages described above and the features that are offered to subscribers of Centrex Plus service, described in Part H, Section 5 of this tariff, are available to FlexGrow customers.		

6.2.3	Regulations	
A.	Enhanced FlexGrow® Service is provided subject to the availability of facilities for a minimum (service period of one year.	
В.	Enhanced FlexGrow® Service is available on a digital basis at the network interface on the customer's premises.	
C.	Enhanced FlexGrow® Service arrangements must have at least one DS0 equivalent FlexGrow channel activated. The total number of FlexGrow channels activated by the customer may not at any time exceed the total Enhanced FlexGrow® Service capacity.	
D.	Enhanced FlexGrow® Service must be channelized in a single equipment location on the customer's premises. Multiple customer locations must be served by one or more separate DS1 FlexGrow System(s).	
E.	Direct Inward Dialing capability is available on PBX trunks at the rates specified in Part C, Section 5, of this Tariff.	
F.	Customers can elect one of three different options at the time Enhanced FlexGrow is ordered. The service can be ordered (a) on a month-to-month basis, (b) under a two-year commitment, and (c) under a three-year commitment.	

Issued: January 11, 2006 Effective: February 10, 2006 Lisa M. Thome
Vice President-NH

6. High Capacity FlexGrow® Service 6.2 Enhanced FlexGrow® Service

6.2.3	Regulations	
G.	Temporary suspension of service is not available with this service.	
		(P)
		1

6.2.4 Termination Liability

(N)

- A. In the event the service is terminated by the customer prior to completion of the current term commitment period or the minimum service period for the month-to-month option, the customer shall be liable for an early termination charge, except as noted below. The amount of the early termination charge will be 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:
 - 25% X MRC X # of Lines/Channels/Paths X Remainder of Term = Termination Charge.
- 1. Early termination charges will apply only to those rate elements under a term commitment period. If any rates for the service are increased during the term period, exclusive of any increase due to local, state or federal fees, taxes or surcharges, the customer may terminate the service without incurring an early termination charge.
- B. End of Term Options- Prior to the end of the term commitment period, the customer may select one of the following options: to be effective at the end of the term:
 - Renew their term commitment.
 - Commit to a new term period,
 - Arrange for a change of service, or,
 - Arrange for termination of the service.
- 1. In the event the customer does not select one of the above options, the customer will be converted to the shortest-term period available under tariff (i.e., month-to-month, one year, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the customer terminates the service within sixty (60) days of the conversion date.

ďΛ

Issued: January 11, 2006 Effective: February 10, 2006 Lisa M. Thorne Vice President-NH

6. High Capacity FlexGrow® Service Enhanced FlexGrow® Service 6.2

6.2.4 **Termination Liability** (N) C. Early termination charges will not be assessed under the following circumstances: 1. Customer moves existing service either to a new location within the same address and/or same building (inside move) or to a new location (outside move) and maintains that service for the remainder of the term. Customer attempts to move the existing service to a new location within Company's service area. but the service is unavailable: Customer renegotiates a new term commitment plan for the same service before the current term commitment expires and the value of the new term commitment is equal to or greater than the remaining value of the current term commitment; or Customer changes to another service or upgrades service to a higher speed or capacity under a term commitment, provided the following conditions are met: The value of the new term commitment is equal to or greater than the remaining value of the current term commitment. The Company provides the new service via tariff or Individual Case Basis (ICB), and, b. The order to discontinue the existing service and the order for the new or upgraded service

6.2.5 Responsibility of the Customer

It is the responsibility of the customer (or any other party of interest such as the applicant for service or the owner or operator for the premises or the builder) to provide in a manner satisfactory to the Telephone Company and without cost to the Telephone Company a means of access to the facilities into the building; space for mounting the necessary terminals and equipment; an environment suitable for equipment; and, where required, a means to reach each floor and each suite or office on each floor where service is desired.

6.2.6 Responsibility of the Telephone Company

are received by the Company at the same time.

The Telephone Company's responsibility ends at the Demarcation Point and does not include maintaining operational capability of customer provided equipment. Customers must provide and maintain customer premises equipment at their own expense.

The Telephone Company undertakes to maintain and repair the facilities which it furnishes in order to provide Enhanced FlexGrow® Service. The customer may not rearrange, disconnect, remove, or attempt to repair any equipment installed by the Telephone Company without prior written consent of the Telephone Company.

Vice President-NH

Issued: January 11, 2006 Effective: February 10, 2006

(T) (X)

(N)

(T)

(X)

6.

High Capacity FlexGrow® Service Enhanced FlexGrow® Service 6.2

(X)

6.2.7	Variable Term Payment Plan	(T)
A.	The monthly rates for Enhanced FlexGrow are offered under the VTPP as described herein and in Part A, Section 1. The VTPP monthly rates are payable over the following Optional Payment Periods (OPP) as selected by the customer.	
1.	The available OPPs for Enhanced FlexGrow are month-to-month, 24 months and 36 months.	

6.2.8	Application of Rates and Charges	(T)
A.	Enhanced FlexGrow monthly rate includes the monthly rate for the business basic exchange service line and/or the Centrex Plus line.	
1.	Usage rates apply as appropriate.	
B.	Compatible optional features or optional Centrex Plus features which are not included herein are available at tariff rates specified within this tariff.	0

Issued: January 11, 2006 Effective: February 10, 2006 Vice President-NH

7. Reserved for Future Use

8. Reserved for Future Use

9. DIGIPATH® Digital Service II (DDSII)

9.1 General

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

9.1.1 Definitions

Bit—The smallest unit of information in the binary system of notation.

Channel Service Unit/Data Service Unit (CSU/DSU)—Customer provided equipment which provides the standard interface to a customer terminal and has functions such as signal translation, data regeneration, control signaling, reformatting, and timing. This interface is used with a local distribution channel for speeds up to 56 kbps and is subject to the limitations specified in NTR-74380.

Serving Wire Center—The office from which a customer would be served for local exchange telephone service.

Universal Data Voice Multiplexer (UDVM)—Customer provided equipment which provides the standard interface to a customer terminal and has functions such as signal translation, data regeneration, control signaling, reformatting, and timing. This interface is used with a two-wire local distribution channel for speeds less than 56 kbps and is subject to the limitations specified in NTR-74380.

9.1.2 Description

- A. DDSII which is provided where suitable facilities exist, is a digital private line service which provides for simultaneous transmission of digital signals at synchronous speeds of 2.4, 4.8, 9.6, 19.2, and 56 kbps within a Local Access and Transport Area (LATA).
- B. Availability
- 1. DDSII service provided via a two-wire technology connected to UDVM customer provided equipment is available only to customers with service connected prior to July 28, 2001.
- 2. Rates, charges and volume discounts for two-wire local distribution channels 2.4, 4.8, 9.6 and 19.2 kbps are available only to customers with service connected prior to July 28, 2001.
- 3. Customers with service connected prior to July 28, 2001 may retain their service unless their designated premises is moved, they request that the Telephone Company hub be changed, or they request a change to the service that results in disconnection of the service.

issued: June 28, 2001 Effective: July 28, 2001 AD MINISTRATIVE Filing J. Michael Hickey President-NH

(N)

9. DIGIPATH® Digital Service II (DDSII)

9.1 General

Description (T)(X)**Service Options** Two Station Service—This offering may consist of two local distribution channels furnished in the same serving wire center or, two local distribution channels furnished in different serving wire centers requiring an interoffice channel. Local distribution channels must be technically compatible and must have technically compatible Customer Provided Equipment (CPE) at both ends. Multi-Station Service—This service consists of connections of three or more stations from designated serving wire centers and provides the capability to connect multiple stations. All stations must operate at the same transmission speed. Local distribution channels must be technically compatible and must have technically compatible CPE at all ends. Point to Serving Wire Center—This offering consists of a local distribution channel between the customer premises and the customer's serving wire center where DDSII capability exists to facilitate connection to another Telephone Company service, or, a local distribution channel and interoffice facilities between the customer's serving wire center and the serving wire center where another company service is available. (X)Secondary Channel Capability—Channel conditioning, provided from suitably equipped serving wire centers, that permits a DDSII channel to be used with a compatible customer provided Data Service Unit which can derive a lower speed secondary channel at a synchronous rate as described in NTR-74380. The secondary channel operates in parallel with the primary DDSII channel and is used for diverse network capabilities including, but not limited to, providing a lower speed data channel or access to a network management system to perform on line diagnostics and testing, data monitoring, traffic measurement, etc. D. **Service Components** (T) 1. Local Distribution Channel—A loop between the customer's premises and the (C) customer's serving wire center where DDS II digital service capability exists. Interoffice Channel—A transmission path between serving wire centers where DDSII capability is available. The mileage is based on the airline distance using V&H coordinates between the serving wire centers.

6/28/01 Issued: June 28, 2001

Effective: July 28, 2001
Administrative Filing.

J. Michael Hickey
President-NH

9. DIGIPATH® Digital Service II (DDSII)

9.2 Responsibility of the Telephone Company

9.2.1 Cancellation

A. When an application for service is cancelled or changed in whole or in part by the applicant prior to completion of the construction and installation, the regulations in Part A, Section 1 apply.

9.2.2 Interruption of Service

- A. A credit allowance will be made for the portion of the service which is affected, subject to the limitations specified herein, provided that the interruption is brought to the attention of the Telephone Company within ten days. For the purpose of determining the amount of allowance, every month is considered to have 30 days.
- 1. Interruptions of 30 minutes or over are credited to the customer at the proportionate monthly charge in half hour multiples for each half hour or major fraction thereof of interruption.
- B. No credit allowance will be made for the following interruptions to service.
- 1. Interruptions to service of less than 30 minutes
- 2. Interruptions due to the negligence of the customer or authorized user
- 3. Interruptions of service due to the failure of facilities or equipment provided by the customer or authorized user
- 4. Interruptions of service which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made, shall begin on the seventh day after the customer receives the Telephone Company's notification of the need for such replacement and shall end on the day after the Telephone Company receives the customer's authorization for such replacement.

9.2.3 Suspension of Service

A. DDSII and its associated equipment is not subject to a temporary suspension of service arrangement.

- 9. DIGIPATH® Digital Service II (DDSII)
- 9.3 Responsibility of the Customer

9.3.1 Customer Provided Equipment

A. A customer provided CSU/DSU or a customer provided UDVM is required at the customer's premises. The customer provided equipment must comply with the appropriate technical standards.

9. DIGIPATH® Digital Service II (DDSII)

9.4 Regulations

9.4.1 Minimum Period and Fractional Charges

- **A.** The minimum period for which service is furnished and for which charges are applicable is one month.
- 1. The charges for a fractional part of a month which follows and is consecutive with a full month will be a proportionate part of the monthly charge using the same ratio that the actual number of days service is furnished bears to 30 days.

9.4.2 Special Construction

A. Where suitable facilities are not available for the provision of service as ordered by the customer or unusual expenditures are involved, special construction charges may apply as determined on a case by case basis as specified in Part A, Section 2.

9.4.3 Application of Rates and Charges

A. Premises work charges apply as appropriate, and are in addition to the monthly rates and NRCs.

9.4.4 Variable Term Payment Plan (VTPP)

- A. This plan may not be combined with any other discounted payment plans or with bulk billing.
- B. The monthly rates and NRCs for DDSII are offered under the VTPP as described herein and in Part A, Section 1. The VTPP monthly rates and S&E charges are payable over the following Optional Payment Periods (OPP) as selected by the customer.
- 1. The available OPPs for DDSII monthly rates are month-to-month, 36 months, 60 months and 84 months.
- **a.** The month-to-month, 36 month, 60 month or 84 month OPPs are available to all DDS II customers.
- 2. The available OPPs for DDSII S&E charges are 36 months, 60 months and 84 months.
- a. When a customer selects the S&E charge 36 month OPP, their S&E monthly rate will reflect a reflect a 25% reduction. When a customer selects the S&E charge 60 month OPP, their S&E monthly rate will reflect a reflect a 50% reduction.
- **b.** An OPP may not be established only for S&E charges. The monthly rates for the channels which incurred the charges must also be included.
- c. The OPP selected for the S&E charges must be the same as the OPP established for monthly rates.
- d. The total number of S&E charges included in an OPP may not exceed the total number of local distribution channels included in the OPP.

9. DIGIPATH® Digital Service II (DDSII)

9.4 Regulations

9.4.4 Variable Term Payment Plan (VTPP)

- C. Customers who select one of the OPPs of 36 months or more have the option to elect Schedule A and Schedule B billing.
- 1. Schedule A contains a charge which may be paid upfront or in the form of monthly rates not to exceed the commitment of the OPP.
- 2. Schedule B contains a monthly rate that is subject to annual change by filed tariff revision to reflect changes in the Consumer Price Index for the previous year. Schedule B monthly rate apply as long as facilities are in-service.
- 3. The customer may elect to pay Schedule A charges over an optional payment period not to exceed 180 months, and not to exceed the length of the service agreement. The customer may also elect to pay Schedule A charges upfront. The Schedule A monthly charge for the optional payment period elected is divided by the appropriate Time Value of Money equivalency factor (as shown in Exhibit 9.4.4-1), based on a monthly effective interest rate of .99384%. These payments are not subject to Telephone Company initiated change during the period of the agreement.
- D. **Relocation** of a local distribution channel to a different premises is permitted. Termination charges do not apply for monthly rates and the monthly billing for VTPP rates continues unchanged. S&E charges, as appropriate, apply to the relocated main local distribution channel.
- 1. Termination charges do apply for S&E charges when the corresponding local distribution channel is disconnected.
- E. Transfer of Service will be provided, subject to the regulations in Part A, Section 1. A VTPP transfer of service charge pertinent to DDSII service will apply.

- DIGIPATH® Digital Service II (DDSII) Regulations 9.
- 9.4

9.4.4 Variable Term Payment Plan (VTPP) Exhibit 9.4.4-1				
36 Months	y Equivalency Factor Table—Se 60 Months	84 Months		
.0332	.0222	.0176		

9. DIGIPATH® Digital Service II (DDSII)

9.4 Regulations

9.4.5 Termination Liability

- A. If a customer terminates service or cancels an OPP before the expiration of a commitment period the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges also apply, in addition to the discounted monthly rates for each channel.
- **B.** The termination charges applicable to DDSII are equal to 50% of the present value of the unpaid balance of the OPP. Except under the following situations.
- 1. If the customer has paid Schedule A prices upfront, then no termination charges are applicable. If Schedule A charges are paid in the form of monthly rates, then termination charges apply as specified in Section 9.4.5B. If S&E charges are paid in the form of monthly rates, the termination charges applicable to the S&E charges are equal to 100% of the present value of the remaining monthly payments. The present value of outstanding OPP monthly rates is determined in accordance with the principles of the Time Value of Money at an effective interest rate of .99384% monthly.
- 2. When a customer disconnects some or all discounted channels in order to replace them with other Telephone Company provided channels, the appropriate minimum service period charges would apply. S&E charges which are paid in the form of monthly rates are always subject to termination charges which apply at the time the corresponding discounted channel is disconnected. Monthly rates for local distribution channels are not subject to termination liability charges provided that the following apply.
- **a.** The orders for the new channels and the disconnect of the existing channels are placed with the Telephone Company at the same time, and the new channels have an equal or greater channel capacity than the disconnected channels.
- 3. If the customer increases service prior to the expiration of a payment period, the customer may elect to include the existing services with the new services under a new OPP. The new payment period must be equal to or greater than the existing payment period. Under this arrangement, the customer would not be subject to the termination liability charge of the prior agreement. The customer also has the option of subscribing to the additional services under a separate OPP. The customer may add additional channels to the existing OPP at the existing OPP monthly rates. Upon the expiration of the existing OPP, the channels added to the system will be subject to a termination charge equal to 50% of the present value of the unpaid balance of the monthly rates and 100% of the unpaid S&E charges if they are being paid monthly. Termination charges apply only if service is discontinued.
- 4. A customer may, at any time prior to the expiration of the selected payment period for an existing OPP, change to an OPP with a longer payment period at the then effective discount. No termination liability charges will apply for any services extended under the longer commitment period. The monthly rates applicable for the longer commitment period will apply effective with the next bill day following the request for the change.

9. DIGIPATH® Digital Service II (DDSII)

9.4 Regulations

9.4.5 Termination Liability

C. At the end of the payment period, the customer will have the option of subscribing to any then effective discount plans or retaining the service under the standard rates in effect at that time. If the customer does not notify the Telephone Company of its choice, standard rates will be applied upon expiration of the payment period.

9.4.6 Volume Discount

- A. In cases where customers have a minimum of ten local distribution channels and elect a month-to-month OPP, a volume discount will apply. Beginning with the installation of the tenth channel, a discount will apply to all local distribution channels in-service.
- B. When order activity reduces the total number of local distribution channels to below ten, all channels will be billed at the full month-to-month rate.

10. Integrated Services Digital Network (ISDN) Services10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

Rates and charges for services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

10.1.	l Description
Α.	ISDN basic is an optional arrangement that allows for the integration of voice and non voice (data) transmission on a single telephone access line and provides access as a digital gateway which will allow for the introduction of additional services.
В.	ISDN basic consists of the following features.
1.	Digital subscriber line
2.	Basic service capabilities
3.	Optional features and optional feature packages
4.	Circuit switched data local usage packages
C.	Each ISDN basic line may only be connected to a single ISDN Customer Provided Equipment (CPE) device.
D.	ISDN basic is furnished subject to availability of facilities and is provided only from a local digital central office switch. The Telephone Company will determine the type of central office switch. This service is provided from suitably equipped digital central offices, and is available for use only with qualified one-party residence or business main telephone exchange service lines or with main station lines equipped for digital Centrex service.
1.	A qualified line is technically compatible and within the loop deployment parameter as specified in the Telephone Company Outside Plant Engineering methods.
E.	Each ISDN basic line is provided with one telephone number which is referred to as the Primary Directory Number (PDN). A second telephone number may be provided in certain central offices when more than one basic service capability is selected.
F.	ISDN basic is not available for use with trunk lines, Dormitory Communications Service (DCS), Centrex service (other than digital Centrex), PASL service or PAL lines.
G.	Customer Notification—In multiple switch central office locations where all switches are not equipped for ISDN basic, a change of telephone number may be required to obtain ISDN basic. If this situation exists the customer will be so notified prior to subscription to ISDN basic. The change of telephone number incurs no additional charge.
H.	Limitations —Service is not furnished where the proposed use of the service or facilities would tend to injuriously affect the efficiency of the Telephone Company's plant, property or service.
I.	Subscription to Other Service —Customers who subscribe to ISDN basic must also subscribe to digital Centrex, or a main telephone exchange service.

10. Integrated Services Digital Network (ISDN) Services
 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.2 Digital Subscriber Line

Digital subscriber line provides the digital central office termination that has the potential to support digital ISDN transmission of voice and data to the customer's premises over the two B and single D channels. This service element must be subscribed to prior to any of the other ISDN basic capabilities or features.

10.1.3 Basic Service Capabilities

- A. Basic service capabilities are voice and data capabilities which can be combined on a single access line. The access line provides a combination of two B channels and one D channel. Each B channel is capable of transmitting up to 64 kbps for circuit switched voice, circuit switched data, or high speed packet switched data. The D channel is a 16 kbps channel and is used for signaling as well as transmission of packet switched data at speeds up to 9.6 kbps. No more than three basic service capabilities may be activated on a single line. If three basic service capabilities are selected, one of these must be low speed packet switched data. At least one basic service capability must be specified before any of the optional features may be selected.
- B. Alternate Circuit Switched Voice or Circuit Switched Data—Operates over a single 64 kbps B channel and is capable of speech or data information transfer. The voice or data transmission capabilities may be used alternately on separately established calls. Once a call has been established on an alternate circuit switched voice/circuit switched data capability, the call cannot be changed from voice to data or vice versa without disconnecting and establishing a new call. For simultaneous circuit switched voice and circuit switched data capability, the circuit switched voice and circuit switched data capabilities must be ordered separately.
- C. Circuit Switched Data—Operates over a 64 kbps B channel used for data information transfer. Both the subscriber to circuit switched data and the other party involved in the transmission must be either served by the same central office switch or served from central offices which are arranged for circuit switched data interoffice interconnection.
- 1. Circuit switched data my be provisioned up to two times on the same line if the customer's single CPE device is capable of supporting the simultaneous use of both B channels for circuit switched data transmission.
- D. Circuit Switched Voice—Operates over a 64 kbps B channel used for voice information transfer. Allow the user to establish a communications channel (logical channel) on a switched basis. One switched virtual circuit is included with the basic service capability. Circuit switched voice must be used with DETS or another basic service capability.

- 10. Integrated Services Digital Network (ISDN) Services
- 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.3 Basic Service Capabilities

- E. | High or Low Speed Packet Switched Data
- 1. Provides virtual circuit basic service using CCITT X.25 packet switching standards. High Speed Packet Switched Data (HSPSD) operates on a B channel at speeds up to 64 kbps while Low Speed Packet Switched Data (LSPSD) operates on a D channel at speeds up to 9.6 kbps. Both the subscriber to high or low speed packet switched data and the other party involved in the transmission must be either served by the same central office switch or served from central offices which are arranged for packet switched data interoffice interconnection.
- 2. High or low speed packet switched data provides synchronous network transport of data, usually relatively short bursts of data, through the network. The data are separated into discrete segments called packets for high speed transmission through the network. All packets are interleaved (statistically multiplexed) on the facilities as they are transmitted. Routing and control information (packet header) is automatically inserted at the beginning of each packet, and error detection information (packet trailer) is automatically inserted at the end of each packet. Complete with this information, the entire packet is routed through the network to its intended destination over a network path that is established at call set up.
- 3. The following features are provided as standard with either the high or low speed packet switched data basic service capability and are negotiated at the time of installation.
- a. Calls Barred Incoming, Outgoing—Prevents an ISDN basic service line equipped with either low or high speed packet switched data basic service capabilities from receiving or originating virtual calls. This feature is offered on a per virtual circuit basis.
- **b.** Hunt Group—Provides a virtual circuit hunt group capability for packet switching which hunts through virtual circuits on a line similar to the analog hunt feature.
- c. Reverse Charge Acceptance—Authorizes incoming packet calls for which billing is reversed and charged to the called line.
- **d.** Reverse Charge Request—Permits a subscriber to, on a per call basis, request the packet switch to assign billing charges to the called data terminal.
- e. Throughput Class Negotiation—Permits negotiation of the throughput class (speed or baud rate) for each direction of data transfer associated with a virtual call.
- F. With either high speed packet switched data or low speed packet switched data, a logical connection (channel) is established between the calling and called line. This logical connection is called a virtual circuit. This differs from a circuit switched connection in that no physical path or circuit is permanently established between the two lines. The virtual circuit exists until the call is terminated by either the called or calling party. The following types of virtual circuits can be established in a packet switched network.
- 1. Switched Virtual Circuits

- 10. Integrated Services Digital Network (ISDN) Services
 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)
- 10.1.3 Basic Service Capabilities
 F. (Continued)
 2. Permanent Virtual Circuits
 G. Multiple Virtual Circuits—The high speed packet switched data capability can support up to 127 multiple virtual circuits while the low speed packet switched data capability can support up to 15 multiple virtual circuits.

10.1.4 Optional Features

- A. Digital Electronic Telephone Service (DETS)—A telecommunications service in which the controlling dial switching equipment is located at a Telephone Company central office which normally serves the principal premises of the customer thereby eliminating the need for controlling equipment and complex wiring on the customer's premises. DETS can only be provided on ISDN basic service lines with Circuit Switched Voice Basic service capability. The number of ISDN basic service lines equipped with DETS must equal the number of CPE voice stations. Basic DETS provides the following features as part of the offering.
- 1. Automatic Intercom/Group Intercom—A button activated feature which provides for abbreviated dialing to members of a predesignated group of ISDN basic lines equipped with DETS. The intercom feature may be dial-type or arranged for automatic connection to designated intercom members.
- 2. Call Appearance—DETS provides for the termination of directory numbers on a designated button or equivalent on the CPE station or equipment. Each call appearance requires a button on the station equipment as defined by the configuration group. The following information describes the use of call appearances.
- a. Bridging with Shared Call Appearance—Permits a third-party to initiate bridging onto a call in progress, as long as that station has an appearance of the desired directory number and no more than two stations are bridged on the call. A minimum of two call appearances is necessary.
- b. Hold with Shared Call Appearance—Allows any station to place a call on hold or retrieve a call from hold as long as that station has a call appearance of the directory number involved.
- c. Multiple Call Appearance—Provides for a single primary or secondary directory number to be assigned to up to five call appearance buttons or equivalent on customer provided equipment. This allows the customer to handle more than one call on a single directory number.
- **d. Shared Call Appearance**—Provides for the establishment of a call group where members of the group may share (have access to) directory numbers of other stations in the group (i.e., more than one station may access the same primary or secondary directory number.

- 10. Integrated Services Digital Network (ISDN) Services
- 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.4 Optional Features

A. 2. (Continued)

- e. Shared Call Appearances with Analog Lines—Allows analog lines to be included in a DETS system group and for the associated analog number to be assigned to a call appearance button on a DETS station set or equivalent.
- 3. Call Appearances/Features—Call appearances for termination of directory numbers and the assignment of central office features to CPE buttons or equivalent are provided based upon the quantity of buttons assigned within the ranges specified. Call appearances/features provided in a 5ESS are provisioned in standard packages referred to as configuration groups. Standard configuration groups are designed to accommodate a range of CPE button assignments of central office features beginning at ten buttons up to and including 60 buttons. The customer served by a 5ESS switch has the option of ordering nonstandard configuration groups for a NRC that applies in addition to a monthly rate for the number of CPE buttons assigned.
- **4. Expanded ISDN Group Coverage**—Enhances the call coverage abilities through the following features.
- **a. Abbreviated Ringing**—Ringing is provided on incoming calls for a customer specified interval.
- **b. Delayed Ringing**—The customer selects the number of seconds to elapse before ringing is provided on an incoming call. A visual signal, such as a flashing light activates as soon as the call originates.
- c. Manual Exclusion—Prevents other station users in the ISDN group from retrieving a held call and from bridging onto a call in progress.
- 5. Feature Access—DETS provides the ability to access call related features either by depressing an assigned button/key or equivalent on the CPE station or equipment or by going off-hook on a call appearance and dialing a feature access code.
- **6. ISDN Flexible Calling**—Allows the customer to transfer, hold, conference and drop calls through button activation.
- **a.** | **Conference**—Allows the user to include a third-party in the call
- b. Drop—Allows the user to drop the last-party added to a conference call
- c. | Hold—Allows the user to place a call on hold
- d. Transfer—Allows the user to transfer a call to another terminal
- 7. ISDN Group—Provides for call coverage by allowing a limit of eight primary directory numbers of other lines to appear on a single ISDN terminal or set. Directory numbers from multiple ISDN groups may appear on a single terminal or set.
- 8. Multiple Directory Numbers—Provides for more than one directory number to be assigned to the call appearances of a single terminal for the exclusive use of that terminal. One directory number will be specified as the primary directory number. All others are considered secondary directory numbers.

- 10. Integrated Services Digital Network (ISDN) Services
- 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.4 **Optional Features** (Continued) Α. **Terminal Management**—Provides for features associated with call appearances to be performed automatically as specified by the customer. The features are as follows. Automatic Hold/Drop Preference—The central office automatically determines how to treat a call in progress on a call appearance when the user shifts to another call appearance without placing the active call on hold. Call Appearance Selection for Conference/Transfer—Provides that an idle call appearance is automatically selected after the user has pressed the conference or transfer button. **Idle Call Appearance Preference**—The switch determines what call appearance is selected when the user goes off-hook without first manually selecting an appearance. Ringing Call Appearance Preference—Provides that if more than one call is alerting on an ISDN basic service line, the first such call will automatically be selected by the central office when the terminal goes off-hook if a specific call appearance is not manually selected. Secondary Directory Numbers (SDN)—May be requested and associated with the DETS feature. SDNs does not require the assignment of line equipment or outside plant facilities. A maximum of three SDNs may be provisioned on a single DETS arrangement. Listings for SDNs are provided as specified in Part A, Section 5. Display—Provides call related data on an ISDN basic service line to the associated terminal that is equipped with a display or which can otherwise utilize this information. This service is provided where suitable facilities are available. Displayservice includes the following features. **Incoming Calling Line Identification**—Provides the calling number of an incoming call. This information may be blocked by the originating party by activation of the per call blocking feature associated with Phonesmart. Inspect for ISDN Station Sets—Enables the user to display call related information about calls placed on hold. Outgoing Called Line Identification—Provides the originating user with the called number, the directory number used to place the call, and the facility used to place the call. High or Low Speed Packet Switched Data Options-May be subscribed to in addition to the basic features provided with packet switched data basic service capability. Additional Virtual Circuits—Are subscribed to in addition to the initial virtual

circuit provided with the HSPSD or LSPSD basic service capability. They may be

Issued: March 07, 2001 Effective: March 07, 2001

switched or permanent.

10. Integrated Services Digital Network (ISDN) Services

10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.4 **Optional Features** D. (Continued) **Closed User Group**—Allows the customer to establish a subnetwork among a restricted number of other users who can communicate privately with each other. Flow Control Parameter Negotiation—Permits negotiation on a per call basis of the flow control parameters (window size and packet size). Permanent Virtual Circuit Selection—A circuit which allows the user to permanently establish a logical channel between two ISDN basic service lines Customer Premises Modem Pool—Provides for the set up and clearing of data calls between an ISDN basic subscriber and a local exchange line utilizing a customer provided modem for data transmission. The data connection is established by routing the call through a member of the modem pool (modem and associated terminal adapter) provided by the customer to perform the necessary analog to digital or digital to analog conversion. This feature must use an ISDN basic service line equipped with LSPSD basic service. No B channel connections to the modem pool members are allowed. Each ISDN basic service line that requires access to a modem pool must subscribe to the Closed User Group packet feature. When using modem pooling, the data speed is limited to 9.6 kbps using the low speed packet switched data capability. 1. Closed User Group—Provides that only data terminals that belong to the same closed user group can access the modem pool for outgoing service or receive calls via the modem pool. Terminating Modem Pool Access Telephone Numbers—Directory numbers which may be used by ISDN basic subscribers who wish to receive data calls from non ISDN subscribers via modem pooling. This number corresponds to a different transmission characteristic in the modem pool and can only be used for terminating data calls to a particular ISDN basic line via the modem pool. F. Circuit Switched Services (Voice and Data)—The following features provide additional functionality to a line. Multiline Hunt Groups—Allows a DETS customer to establish hunt groups for voice or data calls. It also allows the customer to stop hunting and/or make busy selected lines in the hunt group. Hunting sequence and hunt group membership will be dependent on individual directory numbers, either voice or data. **Stop Hunting**—Allows a customer to stop hunting sequence at the specific hunt group member that activates this feature **Make Busy**—Allows a customer to make a line busy without affecting the overall sequence

10. Integrated Services Digital Network (ISDN) Services 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.4 Optional Features

- F. (Continued)
- 2. Call Forwarding—Allows an ISDN line to forward calls to a user defined telephone number based on certain conditions. The destination is changeable by the customer. It is applicable to Circuit Switched Voice and Circuit Switched Data calls.
- a. Call Forwarding Don't Answer—Allows an incoming call to an ISDN line to be automatically forwarded to a predetermined telephone number when the ISDN line does not answer an incoming call within the prescribed time
- b. Call Forwarding Busy Line—Allows an incoming call to an ISDN line to be automatically forwarded to a predetermined telephone number when the station is busy
- 3. Additional Call Offering—Provides the ISDN line with notification of additional voice and data calls when the user's interface is busy.
- **4. Associated Groups**—Terminals on an ISDN line may be restricted to less than the total B channel capacity available. Only two Associated Groups are permitted per line.

10.1.5 Optional Feature Packages

- A. The following feature packages are available with residence or business (non Centrex) ISDN basic service.
- 1. Internet Access package consisting of Incoming Calling Line Identification and Additional Call Offering features.
- 2. Home Office package consisting of Incoming Calling Line Identification, Additional Call Offering, ISDN Flexible Calling (Conference, Transfer, Drop, Hold) and Call Forwarding features. (T)
- 3. Deluxe package consisting of Incoming Calling Line Identification, Additional Call Offering, ISDN Flexible Calling (Conference, Transfer, Drop, Hold), and Call Forwarding, Call Forwarding Busy Line/Don't Answer) features.

10.1.6 Optional Circuit Switched Data Local Usage Packages

- A. The following circuit switched data local usage packages are available only with measured residence or business (non Centrex) ISDN basic service.
- 1. 20 Hour
- 2. 60 Hour
- 3. 140 Hour

Judael Hicker

J. Michael Hickey President-NH

10. Integrated Services Digital Network (ISDN) Services

10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

Virtual Serving Arrangement (VSA) A. ISDN basic VSA is a special two point digital transmission path between a customer's serving central office and a central office that is suitably equipped to provide ISDN basic. This serving arrangement will enable a customer to subscribe to ISDN basic when a customer's serving central office is not equipped to provide ISDN basic. When a customer's serving central office becomes equipped for ISDN basic, the customer can choose to be transferred from the Telephone Company designated ISDN

- 1. When a customer's serving central office becomes equipped for ISDN basic, the customer can choose to be transferred from the Telephone Company designated ISDN basic service equipped central office to the customer's serving central office without charge. The customer's telephone number will be changed when the service is transferred.
- B. Customers of this arrangement will be provided exchange service from the predetermined ISDN basic equipped central office.
- C. This arrangement is furnished from Telephone Company designated ISDN basic service equipped central offices, subject to the availability of suitable facilities. This arrangement is available only to customers served by Telephone Company central offices not equipped to provide ISDN basic or to customers who have subscribed to this arrangement and want to retain this arrangement subsequent to the conversion of their serving central office to provide ISDN basic.
- D. VSA is not available with Intellipath or Intellipath II services.
- E. VSA will be provided only on the standard ISDN basic rate interface 2B1Q two-wire U interface.

10.1.8 Responsibility of the Telephone Company

- A. Interruption of Service—For ISDN basic, any complete failure of service which continues for more than 24 hours, credit will be applied according to Part A, Section 1.
- B. Suspension of Service—ISDN basic is not subject to temporary suspension of service.

10.1.9 Responsibility of the Customer

- **A. Authorizations**—The customer is responsible for obtaining all necessary permits, licenses, consents, waivers, releases and all other rights from all persons whose work, statements, or performances are used in connection with its service and from all holders of copyrights, trademarks and patents used in connection with the information it provides.
- B. Provisioning of Service—The customer's network termination 1 device and the central office switch line termination must use compatible industry standard 2B1Q line code technology.

10. Integrated Services Digital Network (ISDN) Services
 10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.9 Responsibility of the Customer

- C. Customer Premises Equipment (CPE)—The customer is responsible for the installation, operation and maintenance of any customer provided terminal equipment or communications system. No combinations of customer provided terminal equipment or communications systems may require change or alteration of the equipment or services of the Telephone Company, cause electrical hazards to Telephone Company personnel, damage to Telephone Company equipment, malfunction of Telephone Company billing equipment, or degradation of service to persons other than the user of the subject terminal equipment or communications system, his or her calling or called party.
- 1. Upon notice, the customer must make any changes necessary to avoid hazard damage, malfunction or degradation of service.
- 2. Failure to make the necessary changes will result in the discontinuance of ISDN basic.
- 3. The central office ISDN equipment plus ISDN CPE must be technically compatible. To be compatible, CPE must conform to the specifications of the central office switch vendors.
- 4. The Telephone Company does not guarantee end to end compatibility of customer premises equipment.

10.1.10 Regulations

- A. Minimum Period for which service is furnished and for which charges are applicable is one month.
- 1. The charges for a fractional part of a month will be a proportionate part of the monthly charge using the same ratio that the actual number of days service is furnished bears to 30 days.
- B. Special Construction—Where special construction of facilities or equipment is required, special construction charges may apply as determined on a case-by-case basis as specified in Part A, Section 2.

10.1.11 Application of Rates and Charges

. **Voice Usage** is governed by the customer's existing class of service to which ISDN basic is a supplement.

(N)

Verizon New England Inc.

10. Integrated Services Digital Network (ISDN) Services

10.1 ISDN Basic Service and Virtual Serving Arrangement (VSA)

10.1.11 **Application of Rates and Charges** Data Usage is always measured and charged except for usage within the digital Centrex system. Usage for circuit switched data or packet switched data is applied to all billable calls. Circuit switched data usage is always measured and charged as specified for Switchway with the following exceptions. Within the local service area, residence and business customers that subscribe to a CSD local usage package are charged the package monthly and overtime rates. Within the local service area, centrex customers are charged a CSD usage rate. Circuit switched data usage will not be applied to customers subscribing to the Flat Rate ISDN BRI (N)market trial. Packet switched data usage is always measured and charged as specified for Infopath. Intraswitch Circuit Switched Data Usage Package— The monthly rate is applicable whether or not any calls are made. Eligible usage that exceeds the selected usage package is billed the associated package per minute rate. Usage generated by all terminals on each line at the customer's premises are aggregated for the purpose of usage package calculations. Feature Package— The monthly rate is applicable whether or not any of the features in a package are activated. The rates and charges for ISDN service are in addition to the appropriate rates and charges for digital Centrex service, business or residence exchange services, as well as the appropriate service charges. Feature Change Charge applies whenever DETS call appearances are either added, changed or rearranged that do not require a change to a different configuration group or whenever the Terminal Management, Expanded ISDN Group Coverage or ISDN Flexible Calling optional features are either added to the existing ISDN basic service or changed. This charge also applies when changes are made to any of the packet switched data service parameters or when any of the high or low speed packet switched data basic service capability features are either added to existing packet switched data service or are subsequently changed.

Additional or Permanent Virtual Circuits (beyond the first switched virtual circuit included with

the basic service capability) may be provided at additional charges.

Issued: January 31, 2003 Effective: February 25, 2003 President-NH

10. Integrated Services Digital Network (ISDN) Services

10.2 ISDN Primary Service

10.2.1 Definitions

B Channel—A 64 kbps digital message path capable of transporting voice and data

Clear Channel—Provides for the full utilization of the 64 kbps bandwidth of a B channel. The line code used to provide 64 kbps clear channel capability is bipolar with 8 zero substitution, as specified in TR–NWT–000499.

D Channel—A 64 kbps digital message path used for signaling and control of the B channels.

ISDN Primary Service DID Telephone Numbers—Blocks of 100 telephone numbers (or fraction thereof) for provision of Direct Inward Dialing (DID).

10.2.	2 Description	
Α.	ISDN primary (PRI) provides access to the Telephone Company's voice and circuit switched data transport services via a 1.544 Mbps digital path between ISDN compatible customer premises equipment and an ISDN equipped central office. ISDN primary includes DID which permits incoming dialed calls from the network to reach a specific station line of a Private Branch Exchange (PBX) or other customer premises equipment without the assistance of an attendant.	(T
B.	ISDN primary is offered on a measured service-4E basis and on an unlimited service basis. No local usage allowance is provided.	
	ISDN Primary Service is provided from the Company's central office switches with ISDN Primary Service functionality only. When a subscriber's normal serving central office switch is not equipped with ISDN Primary Service, the subscriber may request service from a foreign exchange or foreign central office, subject to the availability of facilities at rates for interoffice facilities as defined elsewhere in the Company's tariff.	
D.	ISDN primary is offered only from suitably equipped central offices, subject to availability of facilities and only within a Local Access and Transport Area (LATA).	

10.2.	3 Service Components
A.	Primary Port — An ISDN primary port provides the termination of the local distribution channel in the central office switch. Each port consists of a D channel for signaling and up to 23 B channels for transmission of voice and circuit switched data calls.
B.	Local Distribution Channel— A 1.544 Mbps two-way transmission path connecting a customer's premises with the port. The framing format for 1.544 Mbps transmission over the ISDN primary service local distribution channel is extended superframe as specified in TR–NWT–000499.
C.	DID Capability is furnished upon the condition that the customer must subscribe to and have adequate facilities to permit the use of service without injurious effect on general telephone service.
1.	ISDN primary DID numbers will be provided only in blocks of 100 numbers (or fraction thereof) for the provision of DID.

Issued: November 21, 2005 Effective: December 21, 2005 DT 05-186

Lisa M. Thorne Vice President-NH

10. Integrated Services Digital Network (ISDN) Services

10.2 ISDN Primary Service

D. Customers may utilize alternate high capacity digital facilities that meets the specifications as determined by the Company in lieu of the ISDN Primary Facility specified herein. The applicable rules, regulations and rates from the appropriate Company Tariff will apply for the alternate high capacity digital facilities. E. The ISDN Primary Service Local Distribution Channel for the 2 and 3-year Volume plan and the 2 and 3-year Corporate Rewards plan includes mileage from the local central office to the customer's premise.

10.2.4 Primary Service Capabilities

A. General— The capabilities described herein are supported on the B channels. Voice and circuit switched data capabilities can be combined over the ISDN primary port and local distribution channel.

B. | Standard Features

- 1. Circuit Switched Voice provides digitized speech or voice band data access in conjunction with existing services including local exchange service, Message Telecommunications Service (MTS), and 800 service.
- 2. Circuit Switched Data allows for the origination and termination of bidirectional circuit switched data calls at data rates of 56 kbps or 64 K (Clear Channel Capability). Circuit switched data calls may not be received on a B channel dedicated to 800 service or on a call-by-call B channel with an indication of 800 service.
- 3. Call-by-Call Service Selection allows the customer to specify, on a call-by-call basis via D channel signaling, the bearer capability (circuit switched voice or circuit switched data) for calls originated over ISDN primary. The customer will also be notified on a call-by-call basis via D channel signaling, of the bearer capability and voice call type (Exchange, MTS or 800 service) for calls terminating over ISDN primary.

C. | Optional Features

- 1. Calling Line Identification provides the calling number of an incoming call if both the ISDN primary customer and the originator of the call are served from the same central office switch or served from different central office switches which are connected by facilities that can send the calling party's number between the switches. PRIs on a VTPP Volume Plan or 2 or 3 Year Corporate Rewards package have a discounted rate for Calling Line Identification.
- 2. Channel Configuration allows some or all B channels to be dedicated to exchange and MTS, DID, or 800 service. Multiple dedicated trunk groups can be established on the same port or group of ports. At the time of ordering, the customer must specify the number of dedicated B channels and their specific purpose.

Issued: November 21, 2005 Effective: December 21, 2005 DT 05-186

Lisa M. Thome Vice President-NH

10. Integrated Services Digital Network (ISDN) Services

10.2 **ISDN Primary Service**

10.2.4 **Primary Service Capabilities**

(X)

(X)

- Multiple Facility Signaling Control (MFSC) allows the D channel of one ISDN primary port to provide signaling for up to 19 other ISDN primary ports. The ports must all be served by the same central office switch and must all serve the same customer premises equipment. This feature is provided in conjunction with the backup D channel optional feature. This feature is included in the Volume Plans and no NRC applies to this plan under the Volume Plan.
- Backup D Channel allows a channel of an ISDN primary port to serve as a backup or standby D channel in case of the failure of the D channel of another ISDN primary port. This feature can only be provisioned in conjunction with the MFSC optional feature. The backup D channel cannot be used as a B channel and can back up only one primary D channel. This feature is included in the Volume Plans and no NRC applies to this plan under the Volume Plan.
- Intercom Capability allows completion of calls between an ISDN primary service customer and other digital Centrex or ISDN primary service locations within the same subscriber network. Usage charges do not apply to intercom use. This feature is provided per channel.
- 6. Network Ring Again allows a calling station which encounters a busy signal within the subscriber network to be notified by the central office switch when the called station becomes idle. The calling station can then automatically redial the call. This feature is provided per controlling D channel.
- 7. Calling Line Identification with Name allows the user to have access to the directory number and name associated with an incoming call. PRIs on a VTTP Volume Plan or 2 or 3 Year Corporate Rewards Plan have a discounted rate for Calling Line Identification with Name.
- Two B Channel Transfer allows the customer provided equipment (CPE) to accept a call from one user, then the user can transfer the call to another user outside the CPE and then both B channels are released.
- Redirecting Number allows the original calling party number plus the last calling party number to be passed to the end user when a call is forwarded or redirected. The user must have Calling Line Identification or Calling Line Identification with Name to enable this feature.
- 10. Modified Redirecting Number allows the original calling party number plus the last redirected calling party number to be passed to the end user when a call is forwarded or redirected. The user must have Calling Line Identification or Calling Line Identification with Name plus Redirecting Number to enable this feature.
- 11. Optional Feature Package includes Calling Line Identification with Name and Redirecting
- 12. Intercom Capability Package provides ten or more intercom capability features on one PRI for a single rate.
- 13. PRI Station Detail Billing - provides individual station call details for all stations utilizing a (N) customer's ISDN Primary Service at an account level, on a monthly basis. These details are provided with the normal customer bill or on the web via the Telephone Company's WEB portal. PRI Station Detail billing is only available with message / measured usage service. Individual PRI Station Call Detail is for informational purposes only. Exact billing information is located in the Measured Call Summary portion of the bill.
- 14. ISDN PRI Service Portability allows a customer to request that one or more of their ISDN Primary Service Port(s) and Telephone Numbers be provisioned from an alternate switch in the same rate area as defined by the Telephone Company.

Issued: November 21, 2005 Effective: December 21, 2005 DT 05-186

OLVA 1/101 Lisa M. Thorne Vice President-NH

10. Integrated Services Digital Network (ISDN) Services

10.2 **ISDN Primary Service**

10.2.5 Responsibility of the Telephone Company

Suspension of Service—ISDN primary is not subject to temporary suspension of service.

Provisions for Other Services— One listing without charge is furnished for each ISDN primary DID number range.

10.2.6 Responsibility of the Customer

- The customer must specify, at the time of ordering, the number of call-by-call service selection B channels and the number of dedicated channels (if any) to be activated. Rates and charges apply for changes in the number or type of activated channels, made subsequent to the time of ordering
- Customer provided equipment used to connect to ISDN primary service must comply with A&T B. PUBs 41449, 41459, 5D5-900-312 and 5D5-900-322.
- A customer provided channel service unit or equivalent functionality is required at each termination of an ISDN primary service local distribution channel on the customer's premises. The channel service unit must be compatible with the extended superframe framing format and the bipolar with 8 zero substitution line code.
- Customer provided switching systems must be arranged to provide for the interception of assigned but unused station numbers, including vacant station number groups as required.

10.2.7 Regulations

- Minimum Service Period for the ISDN primary port and local distribution channel is one year. The minimum service period for ISDN primary DID numbers is one month.
- Provisions for Other Services— A customer calling an ISDN primary telephone number can control the disclosure of his directory number by utilizing the blocking option specified for Phonesmart (refer to Part A, Section 7).
- PRI Station Detail Billing- The customer's ISDN Primary Service must be equipped with Calling Party Default Directory Number with the Calling Party Screening option. Customers will not have the option to change the Calling Party Number and it may not be deleted. Customers will have the option to define a partial listing in the screening list. Specific call details will not be provided for stations not included in the screening list.

The screening list may not include 800 numbers, non-native numbers, fictitious numbers, private network numbers or Centrex Dialing Plan numbers defined in the screening tables,

Station Call Details will only be provided for valid telephone numbers within the switch providing the Customer's ISDN Primary Service,

- ISDN PRI Service Portability is only available when there is an alternate switch in the same Rate Area, as defined by the Telephone Company, equipped with ISDN PRI equipment. When an alternate Telephone Company switch is not located in the same Rate Area as the normal serving switch, the customer may subscribe to ISDN Primary service from the alternate switch in another rate center and pay foreign exchange rates as defined elsewhere in this tariff.
- Tariff rates will apply for ISDN Primary Service Ports and Local Distribution Channels, if applicable.
- 2. Interoffice facility mileage charges from the alternate switch apply as defined in the applicable high capacity facility tariff.
- Applicable usage charges for all originating calls will apply. Charges will be determined by the customer's normal serving switch.

Issued: November 21, 2005 Effective: December 21, 2005 DT 05-186

41 VA //LOUILE Lisa M. Thorne Vice President-NH

(N)

(N)

(X)

(X)

Integrated Services Digital Network (ISDN) Services ISDN Primary Service

Application of Rates and Charges

All local messages are provided at local usage charges for business measured service-4E.

PBX trunk and other network access line rates and charges, as contained in other sections of this tariff, are not applicable to ISDN primary.

Voice Usage—Generated by using ISDN primary will be charged in accordance with the usage rates for the associated service(s).

Unlimited local usage, per call-by-call B channel or dedicated exchange/MTS B channel is charged for as specified for business trunks in the exchange of connection.

Circuit Switched Data Usage— The customer may select from two pricing options for circuit switched data usage. Option 1 circuit switched data usage is provided on a per minute basis with no usage allowance. Option 2 circuit switched data usage is provided with a monthly usage allowance for a flat monthly rate. Any additional minutes of use above the monthly allowance are offered at a discounted rate. Toll charges will apply when circuit switched data calls are made outside of the customer's local exchange area.

The VTPP Volume Plans include the PRI Port, with or without the Local Distribution Channel, and the following components are included in the PRI port: Call by Call, Multiple Facility Signaling Control and Backup D Channel.

S&E charges do not apply for ISDN PRIs and features when provided on the VTPP Volume plan or the ISDN Primary Service provided on a Corporate Rewards 2 or 3 year plan.

No additional mileage charges apply for the local distribution channel when provided as part of the ISDN Primary Service on a VTPP Volume plan or a Corporate Rewards 2 or 3 year plan.

The VTPP Volume Plan has special Calling Line Identification and Calling Line Identification with Name rates that can be used for the VTPP Volume Plan and PRIs under Corporate Rewards 2 or 3 year contracts.

Where a customer chooses to have ISDN primary provided on a foreign exchange or foreign central office basis, the rate for a Superpath 1.544 Mbps interoffice channel applies.

Initial and additional local distribution channels are provided at the monthly rates for Superpath local distribution channels. The S&E charge for the initial local distribution channel is the same as the S&E charge specified for Superpath local distribution channels.

(X)

 \mathcal{A}_{λ}

X

Lisa M. T

i: November 21, 2005 ve: December 21, 2005 DT 05-186

Vice President-NH

10. Integrated Services Digital Network (ISDN) Services

10.2 ISDN Primary Service

10.2.8	Application of Rate	s and Charges
	Application of Nate	3 and Onaiges

- H. An ISDN primary customer served from a foreign exchange or foreign central office may request to have service provided from the customer's normal central office when facilities become available in the normal central office without application of NRCs.
- 1. Under such circumstances a new minimum service period becomes effective when service is established at the normal central office.
- I. Interoffice channels are provided at the rates and charges specified for Superpath 1.544 Mbps interoffice channels.
- J. ISDN primary DID telephone numbers are provided at the rates and charges specified for DID service.
- K. During the contract period, the customer may add ISDN PRI services at the same monthly rate as specified in the initial contract or the customer may add ISDN PRI services on a month-to-month or contract basis.

10.2.9 Variable Term Payment Plan (VTPP)

- A. Monthly rates and S&E charges for the ISDN primary port, local distribution channel (including the interoffice channel, if required), and certain optional features are offered under the VTPP described herein and in Part A, Section 1. The VTPP monthly rates and S&E charges are payable over the following Optional Payment Periods (OPP) as selected by the customer.
- 1. The OPPs for monthly rates are month-to-month, 36 months and 60 months. The 36 month OPP rates for the Port and Calling Line Identification with Name are limited to existing customers of record on or before May 30, 2006. No moves or changes will be permitted to the current location or existing contract. VTPP Volume plan rates are 24 months and 36 months.
- a. The available OPP for S&E charges is 60 months. An OPP may not be established only for S&E charges. The monthly rates for the ports and local distribution channels must also be included.
- **b.** The total number of S&E charges in an OPP must not exceed the total number of ports and local distribution channels included in the OPP.
- c. The OPP selected for S&E charges may not exceed the OPP established for monthly rates.
- 2. The S&E charges for an initial local distribution channel provided under a 36 month or 60 month OPP or on a 24 or 36-month Corporate Rewards and Volume & Term plans reflect a 100% discount.
- 3. The S&E charge for a port or optional feature provided under a 60 month OPP or on a 24 or 36-month Corporate Rewards and Volume & Term plans OPP reflects a 100% discount.
- 4. The S&E charge for the following optional features provided under a 36 month or 60 month monthly rate OPP or on a 24 or 36-month Corporate Rewards and Volume & Term plans reflect a 100% discount.
- a. | Calling Line Identification with Name (60 month OPP, VTTP or Corporate Rewards)
- b. Two B Channel Transfer
- c. Redirecting Number
- d. Modified Redirecting Number
- e. Optional Feature Package
- f. Intercom Capability Package.
- B. Two-year contract customers and two-year Corporate Rewards customers may subscribe to three-year contract optional features or facilities.

Issued: May 1, 2006 Effective: May 31, 2006 Lisa M. Thome
Vice President-NH

(N)

(N)

(D)

(D)

(C)

Docket No. DT 06-069

10. Integrated Services Digital Network (ISDN) Services10.2 ISDN Primary Service

10.2.9 Variable Term Payment Plan (VTPP) C. Termination Liability— If a customer terminates service or cancels an OPP before the expiration of a commitment period, the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges apply. 1. Termination charges applicable to ISDN primary service are dependent upon the payment period selected by the customer (refer to Exhibit 10.2.9-1). 2. Customers with existing PRI contracts may convert to a new contract plan without incurring termination liability charges provided the value of the new contract is equal to or greater than the remaining value of the existing contract plan. D. All of a customer's Telephone Company provided ISDN PRIs within the state will count towards the volume contract threshold. Volume contract customers may change the number (D) of ISDN PRIs during the volume term period. In the event customers under a volume (D) contract make subsequent PRI increases or decreases that cause the total number of PRIs to fall within a different threshold level, all remaining ISDN PRIs will be billed at the applicable level rate for the remainder of the volume contract term period. The customer must provide the account information of the ISDN PRIs included in the volume contract at the time of the initial installation of service and with each change to the service. E. When an ISDN primary customer served from a foreign exchange or foreign central office requests (D) to have service provided from the customer's normal central office when facilities become available in the normal central office, termination liability charges will not apply as long as the (D) quantity of ports and local distribution channels is maintained. The expiration date of the payment (D) period will not change, except when the expiration date would be less than three months from the requested date for service from the normal central office; in this case, the expiration date will be extended to three months from the requested date for service from the normal central office. F. No additional mileage charges apply for the Local Distribution Channel on the ISDN Primary Service when provided as part of the Corporate Rewards 2 or 3 year contract. G. Transfer of Service will be permitted. (C) H. Relocation - When a customer elects to relocate his PRI service to a different premises not serviced by the same central office, prior to the expiration of a contract period, the service is considered to be disconnected, and termination liability applies. However, if the customer relocates to a location served by a suitably equipped central office within the same state and establishes a PRI contractual payment plan of equal or greater monetary value, the customer may relocate without incurring any termination liability. Installation charges for establishing the new

Issued: May 1, 2006 Effective: May 31, 2006

service would apply.

'Lisa M. Thorne Vice President-NH

Docket No. DT 06-069

Integrated Services Digital Network (ISDN) Services 10. 10.2 **ISDN Primary Service**

10.2.9 Variable Term Paym	ent Plan (VTPP)	
Ten	Exhibit 10.2.9-1 mination Charges by Payme	ent Period
Payment Period	Termination Month	Termination Charges
Month-to-Month	1-12	Minimum Service Period
36 Months	1-12	Minimum Service Period and the full S&E/NRC for any port, LDC, or optional feature provided with a 100% discount
	13-36	Month to month rate minus the 36 month rate times the number of months in service
60 Months	1-12	Minimum Service Period and the full S&E/NRC for any port, LDC, or optional feature provided with a 100% discount. Minimum Service Period
	13-36	Month to month rate minus the 36 month rate times the number of months in service
	37-60	36 month rate minus the 60 month rate times the number of months in service
24 Month Volume Plan	1 – 12	Minimum Service Period times month-to-month rate
	13 – 24	Month-to-month rates minus the 24 month rate times the number of months in service
36 Month Volume Plan	1 – 12	Minimum Service Period times month-to-month rate
	13 – 24	Month-to-month rates minus the 24 month rate times the number of months in service
	25 – 36	24 month rate minus the 36 month rate times the number of months in service

Issued: April 9, 2004 Effective: May 9, 2004 Muhael Hickey
J. Michael Hickey
President-NH

J

11. Network Reconfiguration Service (NRS)

11.1 General

Rates and charges for the services explained herein are contained in Part M, Section 3. Service charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

11.1.1 Definitions

Digital Cross Connect System (DCS)—A system which functions as an electronic switching node allowing circuits to be cross connected.

End Link—The digital private line between the customer premises and the DCS. The end link may be provisioned as private line voice grade analog, Superpath 1.544 Mbps Digital service, DDSII or Flexpath.

Mid Link—Superpath 1.544 Mbps Digital service interoffice facilities which interconnect the DCS locations where the customer's end links terminate.

Network Controller—The central computer system used to control the reconfiguration of digital private line networks provisioned through DCS devices.

11.1.2 Description

- A. NRS provides business customers, by use of a network controller, with the ability to access, manage and reconfigure specific digital private line services connected at a DCS.
- **B.** The services which may be reconfigured are private line voice grade analog, DDSII and, either an entire circuit or individual channels of Superpath 1.544 Mbps service or Flexpath service.
- C. Reconfiguration is accomplished by the customer contacting the Telephone Company attendant who will access the network controller or the customer may directly access the network controller as specified in Bell Atlantic Telephone Companies Tariff FCC No. 11, Section 19. Once accessed, the network controller determines if the customer's instructions are valid and passes the appropriate commands to the DCS to effect the reconfiguration.
- D. At the initial installation of NRS, a minimum of three network access ports must be ordered.
- E. If the customer has an existing network and wants to order NRS, any existing digital circuits or private line voice grades the customer has in place may have to be disconnected and connected to a central office serviced by a DCS. Service charges will apply to connect the digital circuit(s).

11. Network Reconfiguration Service (NRS)

11.1 General

11.1.3 Service Components

- A. The basic components of NRS are network access ports, network controller access and optional features.
- 1. Network Access Ports are entry/exit points on the DCS for termination of mid links and/or end links which are private line voice grade analog, DDSII, Superpath 1.544 Mbps and/or Flexpath. These services may terminate at the DCS and there is a port specific to each. NRS requires a minimum of three access ports on the initial DCS. If the customer requires use of DCS's in other locations, NRS requires a minimum of two ports at those other locations.
- 2. Network Controller Access provides for access to the centrally located network controller which provides the management and control function for NRS. The customer may select attendant termination and/or one or more of the access arrangements specified in Bell Atlantic Telephone Companies Tariff FCC No. 11.
- **a.** Attendant Termination allows the customer to dial a ten-digit telephone number and request a Telephone Company attendant to perform the reconfiguration.
- 3. Optional Features
- a. Automatic Reconfiguration—The customer can elect to have a failed service automatically routed over an alternate route without the customer having to access the network controller in order to initiate the reconfiguration. This option allows for Dynamic Alternate Routing (DAR) which automatically reconfigures a failed service between two Telephone Company NRS hub locations or Pre-planned Automatic Routing (PAR) which automatically reconfigures service provided between a customer designated premises and a Telephone Company NRS hub. DAR and PAR occur based on alternate routing instructions previously provided by the customer. Automatic Reconfiguration is provided on all NRS network Access ports under the customer's control, with the exception of NRS network access ports associated with multi-point arrangements which due to technical limitations will not be provided with the Automatic Reconfiguration optional feature. Automatic Reconfiguration is not available when the customer utilizes the attendant termination as its method to access the network controller.

11.1.4 Limitations

- A. NRS is furnished on a full time basis 24 hours a day, seven days a week, except that customer initiated reconfiguration between 12AM and 5AM may be delayed while the Telephone Company performs necessary backup functions and/or software updates on the DCS.
- B. NRS is provided only where facilities are available and is subject to the technical limitations of the digital equipment used by the Telephone Company.

11. Network Reconfiguration Service (NRS)

11.1 General

11.1.4	Limitations
C.	NRS does not include the provision of transport services. Transport services consist of the two major components (i.e., end links and mid links).
1.	End links connect the customer premises to the DCS office and are either Superpath 1.544 Mbps, DDSII, Flexpath or private line voice grade analog.
2.	Mid links are interoffice channels of Superpath 1.544 Mbps which interconnect the DCS offices.
D.	Private line voice grade analog services have direct termination at the DCS.

11. Network Reconfiguration Service (NRS)

11.2 Responsibility of the Telephone Company

11.2.1 Interruption of Service

- A. When service is interrupted for 30 minutes or more a credit allowance will be made for the portion of the service which is affected, provided that the interruption is brought to the attention of the Telephone Company within ten days. For the purposes of determining the amount of allowance, every month is considered to have 30 days.
- 1. Interruptions are credited to the customer at the proportionate monthly contract charge in half hour multiples for each half hour or major fraction thereof of interruption.
- B. No credit allowance will be made for the following interruptions.
- 1. Service interruptions of less than 30 minutes
- 2. Service interruptions caused by the negligence of the customer or authorized user
- 3. Service interruptions resulting from the failure of equipment provided by the customer or authorized user
- 4. Service interruptions which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made begins on the seventh day after the customer receives the Telephone Company's notification of the need for replacement and ends on the day after the Telephone Company receives the customer's authorization for replacement.
- 5. Service interruptions resulting from invalid reconfiguration attempts
- 6. Service interruptions required to perform preventive or routine maintenance, or to perform software updates.

- 11. Network Reconfiguration Service (NRS)
- 11.3 Responsibility of the Customer

11.3.1 Service and Equipment

A. Automatic Reconfiguration—The customer must subscribe to adequate services and NRS network access port for spare capacity requirements for the alternative configuration. All rates and charges for the services and ports associated with the spare capacity will apply as appropriate.

11. Network Reconfiguration Service (NRS)

11.4 Regulations

11.4.	Minimum Period
A.	The minimum service period for NRS is three months.
В.	If the customer initiates a change in digital or analog communications service without NRS to digital or analog communications service with NRS (or vice versa), this activity will be treated as a discontinuance and installation of service and a new minimum service period will be established.

11. Network Reconfiguration Service (NRS)

11.5 Application of Rates and Charges

11.5.	1 General
A.	End Links and Mid Links—The appropriate monthly rates and NRCs apply.
B.	Service Charges apply in addition to the recurring and NRCs for NRS.
C.	Network Access Ports —Monthly rates and NRCs apply to the network access ports on a per port basis.
D.	Network Controller Access —Except for Attendant Termination, rates and charges apply as set forth in Bell Atlantic Telephone Companies FCC No. 11.
1.	Attendant Termination—A monthly rates and NRC applies, per termination.
E.	Automatic Reconfiguration —A one time service establishment charge applies to activate the optional feature. The charge applies once regardless of the number of NRS network access ports under the control of the customer.

11.5.2 Variable Term Payment Plan (VTPP)

- A. The monthly rates for NRS network access ports are offered under the VTPP as described herein and in Part A, Section 1. The VTPP monthly rates are payable over the following Optional Payment Periods (OPP) as selected by the customer. The available OPPs for the network access ports are month-to-month, 36 months and 60 months.
- 1. Only the network access port is eligible for the OPPs of 36 or 60 months.
- B. The VTPP may not be combined with any bulk billing payment plans.
- C. Transfer of service will not be provided.
- D. Expiration—At the end of the payment period, the customer will have the option of subscribing to any then effective VTPP OPPs or retaining the service under the standard rates in effect at that time. If the customer does not notify the Telephone Company of its choice, standard rates will be applied upon expiration of the payment period.

11.5.3 Termination Liability

- A. If a customer terminates service or cancels an OPP before the expiration of a commitment period, the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges also apply.
- B. The termination charges applicable to the network access port OPP are equal to 50% of the present value of the remaining monthly payments of the OPP. The present value of outstanding OPP monthly rates is determined in accordance with the principles of the Time Value of Money at an effective interest rate of .99384% monthly.

11. Network Reconfiguration Service (NRS)

11.5 Application of Rates and Charges

11.5.3 Termination Liability

- C. A customer may, at any time prior to the expiration of the selected payment period for an existing OPP, change to an OPP with a longer payment period than the time remaining on the existing agreement. The discount in effect at the time the new agreement is negotiated applies. No termination liability charges will apply for any services extended under the longer commitment period. The monthly rates applicable for the longer commitment period will apply effective with the day following the request for the change.
- D. If a customer disconnects some or all discounted network access ports in order to replace them with other Telephone Company provided network access ports, the termination liability does not apply providing that the following apply.
- 1. Orders for the disconnect of the existing ports and the connect of the new ports are placed with the Telephone Company at the same time, and
- 2. The new network access ports are provided on the same digital cross connect system as the existing network access ports were provided, and
- 3. The new network access ports are provided under a VTPP OPP commitment period equal to or greater than that of the network access ports being disconnected.

12. Reserved for Future Use

13. Reserved for Future Use